| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | WT | MH | CTD | | | | | | |

**Test Group: AITR1392-8HG-WT-MH-CTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01 #Plies: 12

Test Type: Warp Tensile Condition: CTD

Test Method: MP1112 (ASTMD3039) Modulus/Poisson's Range: Chord 0.1% to 0.3%

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | | Modulus, Msi | | Poisson's Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized | Measured | Normalized | |
| AITR1392-8HG-WT-A-MH1-CTD-1 | 10.004 | 1.0050 | 0.1157 | 0.0096 | 9896.00 | LAT | 85.106 | 82.056 | 3.73 | 3.60 | |
| AITR1392-8HG-WT-A-MH1-CTD-2 | 9.996 | 1.0060 | 0.1167 | 0.0097 | 9907.00 | LGT | 84.387 | 82.066 | 3.77 | 3.67 | |
| AITR1392-8HG-WT-A-MH1-CTD-3 | 10.004 | 1.0060 | 0.1158 | 0.0097 | 10144.00 | LAT | 87.077 | 84.029 | 3.87 | 3.73 | |
| AITR1392-8HG-WT-A-MH1-CTD-4 | 9.997 | 1.0060 | 0.1194 | 0.0100 | NT | | | | NT | | |
| AITR1392-8HG-WT-A-MH2-CTD-1 | 10.004 | 1.0060 | 0.1332 | 0.0111 | 11010.00 | LAT | 82.165 | 91.203 | 3.58 | 3.97 | |
| AITR1392-8HG-WT-A-MH2-CTD-2 | 10.003 | 1.0060 | 0.1338 | 0.0112 | 10696.00 | LAT | 79.463 | 88.602 | 3.64 | 4.06 | |
| AITR1392-8HG-WT-A-MH2-CTD-3 | 10.000 | 1.0060 | 0.1306 | 0.0109 | 10815.00 | LWT | 82.316 | 89.587 | 3.76 | 4.10 | |
| AITR1392-8HG-WT-A-MH2-CTD-4 | 10.002 | 1.0050 | 0.1344 | 0.0112 | NT | | | | NT | | |
| AITR1392-8HG-WT-B-MH1-CTD-1 | 9.996 | 1.0000 | 0.1170 | 0.0098 | 9589.00 | LAT | 81.957 | 79.908 | 3.92 | 3.82 | |
| AITR1392-8HG-WT-B-MH1-CTD-2 | 10.004 | 1.0040 | 0.1190 | 0.0099 | 9843.00 | LAT | 82.385 | 81.698 | 3.85 | 3.82 | |
| AITR1392-8HG-WT-B-MH1-CTD-3 | 10.002 | 1.0050 | 0.1190 | 0.0099 | 9695.00 | LWT | 81.065 | 80.390 | 3.93 | 3.89 | |
| AITR1392-8HG-WT-B-MH1-CTD-4 | 9.996 | 1.0040 | 0.1200 | 0.0100 | NT | | | | NT | | |
| AITR1392-8HG-WT-B-MH2-CTD-1 | 10.000 | 1.0060 | 0.1210 | 0.0101 | 8913.00 | DGM | 73.222 | 73.832 | 3.81 | 3.84 | |
| AITR1392-8HG-WT-B-MH2-CTD-2 | 10.000 | 1.0070 | 0.1200 | 0.0100 | 9070.00 | DGM/AGT | 75.058 | 75.058 | 3.98 | 3.98 | |
| AITR1392-8HG-WT-B-MH2-CTD-3 | 9.998 | 1.0060 | 0.1200 | 0.0100 | 9103.00 | LAT | 75.406 | 75.406 | 3.90 | 3.90 | |
| AITR1392-8HG-WT-B-MH2-CTD-4 | 10.000 | 1.0070 | 0.1190 | 0.0099 | NT | | | | NT | | |
| AITR1392-8HG-WT-C-MH1-CTD-1 | 10.000 | 1.0060 | 0.1209 | 0.0101 | 9497.00 | LWT | 78.084 | 78.670 | 3.63 | 3.66 | |
| AITR1392-8HG-WT-C-MH1-CTD-2 | 10.004 | 1.0060 | 0.1212 | 0.0101 | 9131.00 | DGM/LAT | 74.889 | 75.638 | 3.73 | 3.77 | |
| AITR1392-8HG-WT-C-MH1-CTD-3 | 9.997 | 1.0080 | 0.1198 | 0.0100 | 9880.00 | LWT | 81.816 | 81.680 | 3.74 | 3.73 | |
| AITR1392-8HG-WT-C-MH1-CTD-4 | 9.997 | 1.0070 | 0.1180 | 0.0098 | NT | | | | NT | | |
| AITR1392-8HG-WT-C-MH2-CTD-1 | 9.998 | 1.0070 | 0.1195 | 0.0100 | 9343.00 | LWT | 77.641 | 77.317 | 3.67 | 3.65 | |
| AITR1392-8HG-WT-C-MH2-CTD-2 | 9.994 | 1.0070 | 0.1191 | 0.0099 | 9587.00 | LAT | 79.936 | 79.336 | 3.75 | 3.73 | |
| AITR1392-8HG-WT-C-MH2-CTD-3 | 10.000 | 1.0070 | 0.1192 | 0.0099 | 9607.00 | LAT | 80.035 | 79.502 | 3.84 | 3.81 | |
| AITR1392-8HG-WT-C-MH2-CTD-4 | 10.000 | 1.0070 | 0.1179 | 0.0098 | NT | | | | NT | | |
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| | | | | | | | | | | | |
| Minimum | 9.9940 | 1.0000 | 0.1157 | 0.0096 | 8913.00 | | 73.222 | 73.832 | 3.578 | 3.600 | |
| Maximum | 10.0040 | 1.0080 | 0.1344 | 0.0112 | 11010.00 | | 87.077 | 91.203 | 3.984 | 4.097 | |
| Average | 9.9998 | 1.0058 | 0.1213 | 0.0101 | 9762.56 | | 80.112 | 80.888 | 3.784 | 3.819 | |
| Standard Deviation | 0.0031 | 0.0016 | 0.0056 | 0.0005 | 599.56 | | 3.806 | 4.971 | 0.113 | 0.143 | |
| Coefficient of Variation (%) | 0.03 | 0.16 | 4.61 | 4.61 | 6.14 | | 4.75 | 6.15 | 2.98 | 3.74 | |
| No. Specimens | 24 | 24 | 24 | 24 | 18 | | 18 | 18 | 18 | 18 | |

**Notes:**

NT=Not Tested

NR=No Result

GE=Gage Error

FM=Failure Mode Unacceptable

B-MH2-4 Modulus from 1150 to 3150

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | WT | MH | RTD | | | | | | |

**Test Group: AITR1392-8HG-WT-MH-RTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01 #Plies: 12

Test Type: Warp Tensile Condition: RTD

Test Method: MP1112 (ASTMD3039) Modulus/Poisson's Range: Chord 0.1% to 0.3%

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | | Modulus, Msi | | Poisson's Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized | Measured | Normalized | |
| AITR1392-8HG-WT-A-MH1-RTD-1 | 10.003 | 1.0060 | 0.1200 | 0.0100 | 8206.00 | LAT | 67.975 | 67.975 | 3.57 | 3.57 | |
| AITR1392-8HG-WT-A-MH1-RTD-2 | 10.001 | 1.0060 | 0.1190 | 0.0099 | 8450.00 | LAT | 70.585 | 69.997 | 3.62 | 3.59 | |
| AITR1392-8HG-WT-A-MH1-RTD-3 | 10.004 | 1.0060 | 0.1170 | 0.0098 | 7988.00 | LAB | 67.866 | 66.170 | 3.74 | 3.65 | |
| AITR1392-8HG-WT-A-MH1-RTD-4 | 10.005 | 1.0070 | 0.1150 | 0.0096 | 7959.00 | LAT | 68.728 | 65.864 | 3.71 | 3.56 | |
| AITR1392-8HG-WT-A-MH2-RTD-1 | 10.001 | 1.0060 | 0.1280 | 0.0107 | 8863.00 | LAT | 68.829 | 73.418 | 3.47 | 3.70 | |
| AITR1392-8HG-WT-A-MH2-RTD-2 | 10.006 | 1.0040 | 0.1320 | 0.0110 | FM | LIT | | | NT | | |
| AITR1392-8HG-WT-A-MH2-RTD-3 | 10.000 | 1.0040 | 0.1300 | 0.0108 | 8470.00 | LGM | 64.894 | 70.302 | GE | | |
| AITR1392-8HG-WT-A-MH2-RTD-4 | 10.005 | 1.0050 | 0.1280 | 0.0107 | 8815.00 | LAT | 68.525 | 73.093 | 3.64 | 3.88 | |
| AITR1392-8HG-WT-B-MH1-RTD-1 | 9.998 | 1.0050 | 0.1170 | 0.0098 | 8525.00 | LGT | 72.501 | 70.688 | 3.69 | 3.60 | |
| AITR1392-8HG-WT-B-MH1-RTD-2 | 9.990 | 1.0030 | 0.1130 | 0.0094 | 8244.00 | LAT | 72.738 | 68.495 | 3.74 | 3.52 | |
| AITR1392-8HG-WT-B-MH1-RTD-3 | 9.994 | 1.0030 | 0.1200 | 0.0100 | 8707.00 | LGM | 72.341 | 72.341 | 3.57 | 3.57 | |
| AITR1392-8HG-WT-B-MH1-RTD-4 | 10.000 | 1.0040 | 0.1190 | 0.0099 | NT | | | | NT | | |
| AITR1392-8HG-WT-B-MH2-RTD-1 | 9.999 | 1.0050 | 0.1210 | 0.0101 | 7793.00 | LAB | 64.085 | 64.619 | 3.53 | 3.56 | |
| AITR1392-8HG-WT-B-MH2-RTD-2 | 9.995 | 1.0060 | 0.1210 | 0.0101 | 7760.00 | LAT | 63.750 | 64.281 | 3.55 | 3.58 | |
| AITR1392-8HG-WT-B-MH2-RTD-3 | 9.997 | 1.0030 | 0.1230 | 0.0103 | 7890.00 | LAT | 63.954 | 65.553 | 3.49 | 3.58 | |
| AITR1392-8HG-WT-B-MH2-RTD-4 | 9.995 | 1.0050 | 0.1200 | 0.0100 | NT | | | | NT | | |
| AITR1392-8HG-WT-C-MH1-RTD-1 | 9.998 | 1.0070 | 0.1188 | 0.0099 | 7924.00 | LAT | 66.237 | 65.574 | 3.58 | 3.54 | |
| AITR1392-8HG-WT-C-MH1-RTD-2 | 10.001 | 1.0070 | 0.1104 | 0.0092 | 7954.00 | LAT | 71.546 | 65.823 | 3.94 | 3.63 | |
| AITR1392-8HG-WT-C-MH1-RTD-3 | 10.000 | 1.0070 | 0.1206 | 0.0101 | 8371.00 | DGM/LAT/LAB | 68.929 | 69.273 | 3.58 | 3.60 | |
| AITR1392-8HG-WT-C-MH1-RTD-4 | 9.997 | 1.0060 | 0.1199 | 0.0100 | NT | | | | NT | | |
| AITR1392-8HG-WT-C-MH2-RTD-1 | 9.998 | 1.0080 | 0.1196 | 0.0100 | 8059.00 | LAT | 66.848 | 66.625 | 3.66 | 3.65 | |
| AITR1392-8HG-WT-C-MH2-RTD-2 | 9.999 | 1.0060 | 0.1172 | 0.0098 | 8248.00 | LGT | 69.956 | 68.323 | 3.63 | 3.54 | |
| AITR1392-8HG-WT-C-MH2-RTD-3 | 9.998 | 1.0060 | 0.1175 | 0.0098 | 8021.00 | LAT | 67.857 | 66.443 | 3.72 | 3.65 | |
| AITR1392-8HG-WT-C-MH2-RTD-4 | 9.999 | 1.0070 | 0.1186 | 0.0099 | NT | | | | NT | | |
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| Minimum | 9.9900 | 1.0030 | 0.1104 | 0.0092 | 7760.00 | | 63.750 | 64.281 | 3.470 | 3.519 | |
| Maximum | 10.0060 | 1.0080 | 0.1320 | 0.0110 | 8863.00 | | 72.738 | 73.418 | 3.942 | 3.883 | |
| Average | 9.9993 | 1.0055 | 0.1202 | 0.0100 | 8223.53 | | 68.323 | 68.150 | 3.635 | 3.609 | |
| Standard Deviation | 0.0038 | 0.0014 | 0.0050 | 0.0004 | 340.41 | | 2.876 | 2.851 | 0.112 | 0.083 | |
| Coefficient of Variation (%) | 0.04 | 0.14 | 4.20 | 4.20 | 4.14 | | 4.21 | 4.18 | 3.09 | 2.29 | |
| No. Specimens | 24 | 24 | 24 | 24 | 19 | | 19 | 19 | 18 | 18 | |

**Notes:**

NT=Not Tested

NR=No Result

GE=Gage Error

FM=Failure Mode Unacceptable

WT-A-MH2-RTD-4:Modulus from 1500 to 3500

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | WT | MH | ETW | | | | | | |

**Test Group: AITR1392-8HG-WT-MH-ETW**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01 #Plies: 12

Test Type: Warp Tensile Condition: ETW

Test Method: MP1112 (ASTMD3039) Modulus/Poisson's Range: Chord 0.1% to 0.3%

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | | Modulus, Msi | | Poisson's Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized | Measured | Normalized | |
| AITR1392-8HG-WT-A-MH1-ETW-1 | 10.013 | 1.0060 | 0.1150 | 0.0096 | 5385.00 | LAT | 46.547 | 44.607 | 3.56 | 3.42 | |
| AITR1392-8HG-WT-A-MH1-ETW-2 | 10.009 | 1.0060 | 0.1200 | 0.0100 | 5389.00 | LAT | 44.640 | 44.640 | 3.42 | 3.42 | |
| AITR1392-8HG-WT-A-MH1-ETW-3 | 10.009 | 1.0070 | 0.1180 | 0.0098 | 5535.00 | LGM | 46.581 | 45.804 | 3.58 | 3.52 | |
| AITR1392-8HG-WT-A-MH1-ETW-4 | | | | | NT | | | | NT | | |
| AITR1392-8HG-WT-A-MH2-ETW-1 | 10.008 | 1.0050 | 0.1270 | 0.0106 | 5913.00 | LAT | 46.327 | 49.030 | 3.27 | 3.46 | |
| AITR1392-8HG-WT-A-MH2-ETW-2 | 10.014 | 1.0050 | 0.1270 | 0.0106 | 5897.00 | LGT | 46.202 | 48.897 | 3.30 | 3.49 | |
| AITR1392-8HG-WT-A-MH2-ETW-3 | 10.009 | 1.0060 | 0.1260 | 0.0105 | 5596.00 | LAT | 44.148 | 46.355 | 3.38 | 3.55 | |
| AITR1392-8HG-WT-A-MH2-ETW-4 | | | | | NT | | | | NT | | |
| AITR1392-8HG-WT-B-MH1-ETW-1 | 10.008 | 1.0040 | 0.1200 | 0.0100 | 5185.00 | LGM | 43.036 | 43.036 | 3.11 | 3.11 | |
| AITR1392-8HG-WT-B-MH1-ETW-2 | 10.003 | 1.0050 | 0.1130 | 0.0094 | 5473.00 | LGB | 48.193 | 45.381 | 3.42 | 3.22 | |
| AITR1392-8HG-WT-B-MH1-ETW-3 | 10.010 | 1.0060 | 0.1180 | 0.0098 | 5569.00 | LGT | 46.913 | 46.132 | 4.01 | 3.94 | |
| AITR1392-8HG-WT-B-MH1-ETW-4 | | | | | NT | | | | NT | | |
| AITR1392-8HG-WT-B-MH2-ETW-1 | 10.004 | 1.0060 | 0.1220 | 0.0102 | 5139.00 | LGM | 41.872 | 42.570 | 3.26 | 3.31 | |
| AITR1392-8HG-WT-B-MH2-ETW-2 | 10.012 | 1.0060 | 0.1220 | 0.0102 | 5168.00 | LGM | 42.108 | 42.810 | 3.15 | 3.20 | |
| AITR1392-8HG-WT-B-MH2-ETW-3 | 10.010 | 1.0020 | 0.1210 | 0.0101 | 5071.00 | LGT | 41.825 | 42.174 | 3.54 | 3.57 | |
| AITR1392-8HG-WT-B-MH2-ETW-4 | | | | | NT | | | | NT | | |
| AITR1392-8HG-WT-C-MH1-ETW-1 | 10.009 | 1.0060 | 0.1190 | 0.0099 | 5245.00 | LGM | 43.813 | 43.448 | 3.27 | 3.25 | |
| AITR1392-8HG-WT-C-MH1-ETW-2 | 10.009 | 1.0060 | 0.1190 | 0.0099 | 5145.00 | LGM | 42.977 | 42.619 | 3.34 | 3.32 | |
| AITR1392-8HG-WT-C-MH1-ETW-3 | 10.014 | 1.0070 | 0.1190 | 0.0099 | 5227.00 | LGT | 43.619 | 43.256 | 3.29 | 3.26 | |
| AITR1392-8HG-WT-C-MH1-ETW-4 | | | | | NT | | | | NT | | |
| AITR1392-8HG-WT-C-MH2-ETW-1 | 10.001 | 1.0070 | 0.1170 | 0.0098 | 5169.00 | LGB | 43.872 | 42.776 | 3.42 | 3.33 | |
| AITR1392-8HG-WT-C-MH2-ETW-2 | 10.008 | 1.0060 | 0.1180 | 0.0098 | 5138.00 | LAT | 43.283 | 42.561 | 3.40 | 3.35 | |
| AITR1392-8HG-WT-C-MH2-ETW-3 | 10.010 | 1.0050 | 0.1160 | 0.0097 | 5339.00 | LGT | 45.797 | 44.270 | 3.54 | 3.42 | |
| AITR1392-8HG-WT-C-MH2-ETW-4 | | | | | NT | | | | NT | | |
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| Minimum | 10.0010 | 1.0020 | 0.1130 | 0.0094 | 5071.00 | | 41.825 | 42.174 | 3.113 | 3.113 | |
| Maximum | 10.0140 | 1.0070 | 0.1270 | 0.0106 | 5913.00 | | 48.193 | 49.030 | 4.010 | 3.943 | |
| Average | 10.0089 | 1.0056 | 0.1198 | 0.0100 | 5365.72 | | 44.542 | 44.465 | 3.404 | 3.397 | |
| Standard Deviation | 0.0035 | 0.0012 | 0.0039 | 0.0003 | 254.49 | | 1.931 | 2.108 | 0.202 | 0.187 | |
| Coefficient of Variation (%) | 0.03 | 0.12 | 3.24 | 3.24 | 4.74 | | 4.33 | 4.74 | 5.94 | 5.49 | |
| No. Specimens | 18 | 18 | 18 | 18 | 18 | | 18 | 18 | 18 | 18 | |

**Notes:**
NT=Not Tested
NR=No Result
GE=Gage Error
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | WT | MH | ETW2 | | | | | | |

**Test Group: AITR1392-8HG-WT-MH-ETW2**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01 #Plies: 12

Test Type: Warp Tensile Condition: ETW2

Test Method: MP1112 (ASTMD3039) Modulus/Poisson's Range: Chord 0.1% to 0.3%

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | | Modulus, Msi | | Poisson's Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized | Measured | Normalized | |
| AITR1392-8HG-WT-A-MH1-ETW2-1 | 10.005 | 1.0050 | 0.1180 | 0.0098 | 4976.00 | LGT | 41.960 | 41.260 | 3.76 | 3.70 | |
| AITR1392-8HG-WT-A-MH1-ETW2-2 | 10.004 | 1.0000 | 0.1200 | 0.0100 | 5096.00 | LGM | 42.467 | 42.467 | 4.20 | 4.20 | |
| AITR1392-8HG-WT-A-MH1-ETW2-3 | 10.008 | 1.0050 | 0.1200 | 0.0100 | 5220.00 | LGT | 43.284 | 43.284 | 4.03 | 4.03 | |
| AITR1392-8HG-WT-A-MH1-ETW2-4 | | | | | NT | | | | NT | | |
| AITR1392-8HG-WT-A-MH2-ETW2-1 | 10.008 | 1.0050 | 0.1300 | 0.0108 | 5588.00 | LGT | 42.771 | 46.335 | 4.01 | 4.35 | |
| AITR1392-8HG-WT-A-MH2-ETW2-2 | 10.002 | 1.0050 | 0.1260 | 0.0105 | 5526.00 | LGT | 43.639 | 45.821 | 3.96 | 4.16 | |
| AITR1392-8HG-WT-A-MH2-ETW2-3 | 10.008 | 1.0060 | 0.1260 | 0.0105 | NT | | | | NT | | |
| AITR1392-8HG-WT-A-MH2-ETW2-4 | 10.010 | 1.0050 | 0.1300 | 0.0108 | 5431.00 | LAT | 41.569 | 45.033 | 4.28 | 4.64 | |
| AITR1392-8HG-WT-B-MH1-ETW2-1 | 10.010 | 1.0050 | 0.1200 | 0.0100 | 5178.00 | LAT | 42.935 | 42.935 | 4.29 | 4.29 | |
| AITR1392-8HG-WT-B-MH1-ETW2-2 | 10.010 | 1.0050 | 0.1200 | 0.0100 | 4931.00 | LGM | 40.887 | 40.887 | GE | | |
| AITR1392-8HG-WT-B-MH1-ETW2-3 | 10.007 | 1.0050 | 0.1200 | 0.0100 | 5252.00 | LGM | 43.549 | 43.549 | 3.95 | 3.95 | |
| AITR1392-8HG-WT-B-MH1-ETW2-4 | | | | | NT | | | | NT | | |
| AITR1392-8HG-WT-B-MH2-ETW2-1 | 10.006 | 1.0060 | 0.1200 | 0.0100 | 4863.00 | LGM | 40.283 | 40.283 | 3.99 | 3.99 | |
| AITR1392-8HG-WT-B-MH2-ETW2-2 | 10.009 | 1.0060 | 0.1200 | 0.0100 | 4685.00 | LGM | 38.809 | 38.809 | GE | | |
| AITR1392-8HG-WT-B-MH2-ETW2-3 | 10.004 | 1.0070 | 0.1180 | 0.0098 | 4686.00 | LGT | 39.436 | 38.779 | 4.83 | 4.75 | |
| AITR1392-8HG-WT-B-MH2-ETW2-4 | | | | | NT | | | | NT | | |
| AITR1392-8HG-WT-C-MH1-ETW2-1 | 10.012 | 1.0070 | 0.1140 | 0.0095 | 4741.00 | LGB | 41.299 | 39.234 | 4.51 | 4.28 | |
| AITR1392-8HG-WT-C-MH1-ETW2-2 | 10.012 | 1.0070 | 0.1180 | 0.0098 | 4920.00 | LGT | 41.405 | 40.715 | GE | | |
| AITR1392-8HG-WT-C-MH1-ETW2-3 | 10.008 | 1.0070 | 0.1180 | 0.0098 | 4770.00 | LGT | 40.143 | 39.474 | 4.64 | 4.56 | |
| AITR1392-8HG-WT-C-MH1-ETW2-4 | | | | | NT | | | | NT | | |
| AITR1392-8HG-WT-C-MH2-ETW2-1 | 10.004 | 1.0060 | 0.1130 | 0.0094 | 4898.00 | LGM | 43.087 | 40.573 | GE | | |
| AITR1392-8HG-WT-C-MH2-ETW2-2 | 10.008 | 1.0070 | 0.1170 | 0.0098 | 4904.00 | LGM | 41.623 | 40.583 | 4.47 | 4.36 | |
| AITR1392-8HG-WT-C-MH2-ETW2-3 | 10.006 | 1.0070 | 0.1180 | 0.0098 | 4838.00 | LGT | 40.715 | 40.036 | 3.65 | 3.59 | |
| AITR1392-8HG-WT-C-MH2-ETW2-4 | | | | | NT | | | | NT | | |
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| Minimum | 10.0020 | 1.0000 | 0.1130 | 0.0094 | 4685.00 | | 38.809 | 38.779 | 3.653 | 3.592 | |
| Maximum | 10.0120 | 1.0070 | 0.1300 | 0.0108 | 5588.00 | | 43.639 | 46.335 | 4.830 | 4.750 | |
| Average | 10.0074 | 1.0056 | 0.1203 | 0.0100 | 5027.94 | | 41.659 | 41.670 | 4.184 | 4.203 | |
| Standard Deviation | 0.0028 | 0.0016 | 0.0046 | 0.0004 | 280.87 | | 1.429 | 2.360 | 0.339 | 0.333 | |
| Coefficient of Variation (%) | 0.03 | 0.16 | 3.84 | 3.84 | 5.59 | | 3.43 | 5.66 | 8.10 | 7.93 | |
| No. Specimens | 19 | 19 | 19 | 19 | 18 | | 18 | 18 | 14 | 14 | |

**Notes:**

NT=Not Tested
NR=No Result
GE=Gage Error
FM=Failure Mode Unacceptable

WT-B-MH2-ETW2-3:Modulus from 2400 to 4400

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | FT | MH | CTD | | | | | | |

**Test Group: AITR1392-8HG-FT-MH-CTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01 #Plies: 12

Test Type: Fill Tensile Condition: CTD

Test Method: MP1112 (ASTMD3039) Modulus/Poisson's Range: Chord 0.1% to 0.3%

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | | Modulus, Msi | | Poisson's Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized | Measured | Normalized | |
| AITR1392-8HG-FT-A-MH1-CTD-1 | 9.996 | 1.0060 | 0.1180 | 0.0098 | 8216.00 | DGM | 69.212 | 68.058 | 3.68 | 3.62 | |
| AITR1392-8HG-FT-A-MH1-CTD-2 | 9.995 | 1.0060 | 0.1190 | 0.0099 | 8204.00 | DGM | 68.530 | 67.959 | 3.52 | 3.49 | |
| AITR1392-8HG-FT-A-MH1-CTD-3 | 9.998 | 1.0050 | 0.1170 | 0.0098 | 8063.00 | DGM/LAT | 68.572 | 66.857 | 3.61 | 3.52 | |
| AITR1392-8HG-FT-A-MH1-CTD-4 | 9.996 | 1.0050 | 0.1190 | 0.0099 | NT | | | | NT | | |
| AITR1392-8HG-FT-A-MH2-CTD-1 | 10.004 | 1.0040 | 0.1200 | 0.0100 | 8411.00 | DGM/EWT | 69.812 | 69.812 | 3.58 | 3.58 | |
| AITR1392-8HG-FT-A-MH2-CTD-2 | 10.004 | 0.9960 | 0.1160 | 0.0097 | 8220.00 | LAT | 71.147 | 68.775 | 3.65 | 3.53 | |
| AITR1392-8HG-FT-A-MH2-CTD-3 | 10.001 | 1.0060 | 0.1180 | 0.0098 | 8418.00 | LWT | 70.914 | 69.732 | 3.69 | 3.63 | |
| AITR1392-8HG-FT-A-MH2-CTD-4 | 10.015 | 1.0070 | 0.1180 | 0.0098 | NT | | | | NT | | |
| AITR1392-8HG-FT-B-MH1-CTD-1 | 9.992 | 1.0040 | 0.1200 | 0.0100 | 7773.00 | LAT | 64.517 | 64.517 | 3.37 | 3.37 | |
| AITR1392-8HG-FT-B-MH1-CTD-2 | 9.990 | 1.0070 | 0.1210 | 0.0101 | 7767.00 | DGM | 63.744 | 64.275 | 3.52 | 3.55 | |
| AITR1392-8HG-FT-B-MH1-CTD-3 | 9.993 | 1.0080 | 0.1210 | 0.0101 | 7695.00 | DGM/LWT | 63.090 | 63.616 | 3.54 | 3.57 | |
| AITR1392-8HG-FT-B-MH1-CTD-4 | 9.992 | 1.0060 | 0.1230 | 0.0103 | NT | | | | NT | | |
| AITR1392-8HG-FT-B-MH2-CTD-1 | 10.002 | 1.0070 | 0.1190 | 0.0099 | 8924.00 | DGM | 74.470 | 73.850 | 3.55 | 3.52 | |
| AITR1392-8HG-FT-B-MH2-CTD-2 | 10.003 | 1.0070 | 0.1200 | 0.0100 | 8831.00 | DGM | 73.080 | 73.080 | 3.60 | 3.60 | |
| AITR1392-8HG-FT-B-MH2-CTD-3 | 10.001 | 1.0070 | 0.1190 | 0.0099 | 8547.00 | DGM | 71.324 | 70.730 | 3.58 | 3.55 | |
| AITR1392-8HG-FT-B-MH2-CTD-4 | 10.004 | 1.0060 | 0.1210 | 0.0101 | NT | | | | NT | | |
| AITR1392-8HG-FT-C-MH1-CTD-1 | 10.009 | 1.0060 | 0.1170 | 0.0098 | 8017.00 | DGM | 68.113 | 66.410 | 3.63 | 3.54 | |
| AITR1392-8HG-FT-C-MH1-CTD-2 | 10.006 | 1.0070 | 0.1130 | 0.0094 | 8230.00 | DGT | 72.326 | 68.107 | 3.82 | 3.60 | |
| AITR1392-8HG-FT-C-MH1-CTD-3 | 10.007 | 1.0070 | 0.1140 | 0.0095 | 8442.00 | DGM | 73.538 | 69.861 | 3.73 | 3.54 | |
| AITR1392-8HG-FT-C-MH1-CTD-4 | 10.004 | 1.0040 | 0.1160 | 0.0097 | NT | | | | NT | | |
| AITR1392-8HG-FT-C-MH2-CTD-1 | 10.010 | 1.0070 | 0.1130 | 0.0094 | 8516.00 | DGM | 74.839 | 70.473 | 3.89 | 3.66 | |
| AITR1392-8HG-FT-C-MH2-CTD-2 | 10.006 | 1.0050 | 0.1180 | 0.0098 | 8312.00 | DGM | 70.090 | 68.922 | 3.67 | 3.61 | |
| AITR1392-8HG-FT-C-MH2-CTD-3 | 10.005 | 1.0060 | 0.1190 | 0.0099 | 8613.00 | LAT | 71.946 | 71.347 | 3.59 | 3.56 | |
| AITR1392-8HG-FT-C-MH2-CTD-4 | 10.005 | 1.0060 | 0.1200 | 0.0100 | NT | | | | NT | | |
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| Minimum | 9.9900 | 0.9960 | 0.1130 | 0.0094 | 7695.00 | | 63.090 | 63.616 | 3.366 | 3.366 | |
| Maximum | 10.0150 | 1.0080 | 0.1230 | 0.0103 | 8924.00 | | 74.839 | 73.850 | 3.888 | 3.661 | |
| Average | 10.0016 | 1.0056 | 0.1183 | 0.0099 | 8288.83 | | 69.959 | 68.688 | 3.623 | 3.558 | |
| Standard Deviation | 0.0064 | 0.0023 | 0.0025 | 0.0002 | 344.11 | | 3.463 | 2.834 | 0.118 | 0.065 | |
| Coefficient of Variation (%) | 0.06 | 0.23 | 2.14 | 2.14 | 4.15 | | 4.95 | 4.13 | 3.27 | 1.84 | |
| No. Specimens | 24 | 24 | 24 | 24 | 18 | | 18 | 18 | 18 | 18 | |

**Notes:**
NT=Not Tested
NR=No Result
GE=Gage Error
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | FT | MH | RTD | | | | | | |

**Test Group: AITR1392-8HG-FT-MH-RTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01 #Plies: 12

Test Type: Fill Tensile Condition: RTD

Test Method: MP1112 (ASTMD3039) Modulus/Poisson's Range: Chord 0.1% to 0.3%

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | | Modulus, Msi | | Poisson's Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized | Measured | Normalized | |
| AITR1392-8HG-FT-A-MH1-RTD-1 | 10.000 | 1.0060 | 0.1190 | 0.0099 | 7576.79 | LAT | 63.291 | 62.763 | 3.23 | 3.20 | |
| AITR1392-8HG-FT-A-MH1-RTD-2 | 10.000 | 1.0050 | 0.1200 | 0.0100 | 7549.31 | LAT | 62.598 | 62.598 | 3.29 | 3.29 | |
| AITR1392-8HG-FT-A-MH1-RTD-3 | 10.000 | 1.0040 | 0.1160 | 0.0097 | 6433.77 | LGT | 55.243 | 53.401 | 3.43 | 3.31 | |
| AITR1392-8HG-FT-A-MH1-RTD-4 | | | | | NT | | | | NT | | |
| AITR1392-8HG-FT-A-MH2-RTD-1 | 10.000 | 1.0060 | 0.1170 | 0.0098 | 6820.05 | LAT | 57.943 | 56.495 | 3.29 | 3.20 | |
| AITR1392-8HG-FT-A-MH2-RTD-2 | 10.000 | 1.0060 | 0.1200 | 0.0100 | 7555.61 | LAB | 62.588 | 62.588 | 3.25 | 3.25 | |
| AITR1392-8HG-FT-A-MH2-RTD-3 | 10.000 | 1.0060 | 0.1180 | 0.0098 | 7169.07 | SMT | 60.392 | 59.386 | 3.48 | 3.42 | |
| AITR1392-8HG-FT-A-MH2-RTD-4 | | | | | NT | | | | NT | | |
| AITR1392-8HG-FT-B-MH1-RTD-1 | 10.000 | 1.0040 | 0.1180 | 0.0098 | 6945.85 | LAT | 58.629 | 57.651 | 3.29 | 3.23 | |
| AITR1392-8HG-FT-B-MH1-RTD-2 | 10.000 | 1.0070 | 0.1220 | 0.0102 | 7329.44 | LAB | 59.660 | 60.654 | 3.42 | 3.47 | |
| AITR1392-8HG-FT-B-MH1-RTD-3 | 10.000 | 1.0070 | 0.1200 | 0.0100 | 7092.57 | LAT | 58.694 | 58.694 | 3.41 | 3.41 | |
| AITR1392-8HG-FT-B-MH1-RTD-4 | | | | | NT | | | | NT | | |
| AITR1392-8HG-FT-B-MH2-RTD-1 | 10.000 | 1.0070 | 0.1190 | 0.0099 | 7860.44 | LGB | 65.595 | 65.048 | 3.18 | 3.15 | |
| AITR1392-8HG-FT-B-MH2-RTD-2 | 10.000 | 1.0070 | 0.1210 | 0.0101 | 7569.42 | LAB | 62.122 | 62.640 | 3.50 | 3.53 | |
| AITR1392-8HG-FT-B-MH2-RTD-3 | 10.000 | 1.0070 | 0.1190 | 0.0099 | 8028.70 | LGM | 66.999 | 66.441 | 3.32 | 3.29 | |
| AITR1392-8HG-FT-B-MH2-RTD-4 | | | | | NT | | | | NT | | |
| AITR1392-8HG-FT-C-MH1-RTD-1 | 10.000 | 1.0060 | 0.1130 | 0.0094 | 7245.03 | LAT | 63.733 | 60.015 | 3.45 | 3.25 | |
| AITR1392-8HG-FT-C-MH1-RTD-2 | 10.000 | 1.0070 | 0.1130 | 0.0094 | 6646.20 | LAB | 58.407 | 55.000 | 3.48 | 3.28 | |
| AITR1392-8HG-FT-C-MH1-RTD-3 | | | | | NT | | | | NT | | |
| AITR1392-8HG-FT-C-MH1-RTD-4 | 10.000 | 1.0050 | 0.1140 | 0.0095 | 7420.17 | LAT | 64.765 | 61.527 | 3.51 | 3.33 | |
| AITR1392-8HG-FT-C-MH2-RTD-1 | 10.000 | 1.0050 | 0.1160 | 0.0097 | 7391.92 | LAB | 63.406 | 61.293 | 3.55 | 3.43 | |
| AITR1392-8HG-FT-C-MH2-RTD-2 | 10.000 | 1.0060 | 0.1190 | 0.0099 | 7429.89 | LAB | 62.064 | 61.546 | 3.48 | 3.45 | |
| AITR1392-8HG-FT-C-MH2-RTD-3 | 10.000 | 1.0060 | 0.1190 | 0.0099 | 7449.51 | LAB | 62.228 | 61.709 | 3.43 | 3.40 | |
| AITR1392-8HG-FT-C-MH2-RTD-4 | | | | | NT | | | | NT | | |
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| Minimum | 10.0000 | 1.0040 | 0.1130 | 0.0094 | 6433.77 | | 55.243 | 53.401 | 3.177 | 3.151 | |
| Maximum | 10.0000 | 1.0070 | 0.1220 | 0.0102 | 8028.70 | | 66.999 | 66.441 | 3.548 | 3.531 | |
| Average | 10.0000 | 1.0059 | 0.1179 | 0.0098 | 7306.32 | | 61.575 | 60.525 | 3.386 | 3.328 | |
| Standard Deviation | 0.0000 | 0.0010 | 0.0026 | 0.0002 | 404.45 | | 3.021 | 3.328 | 0.112 | 0.108 | |
| Coefficient of Variation (%) | 0.00 | 0.10 | 2.22 | 2.22 | 5.54 | | 4.91 | 5.50 | 3.30 | 3.25 | |
| No. Specimens | 18 | 18 | 18 | 18 | 18 | | 18 | 18 | 18 | 18 | |

**Notes:**
NT=Not Tested
NR=No Result
GE=Gage Error
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | FT | MH | ETW | | | | | | |

**Test Group: AITR1392-8HG-FT-MH-ETW**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01 #Plies: 12

Test Type: Fill Tensile Condition: ETW

Test Method: MP1112 (ASTMD3039) Modulus/Poisson's Range: Chord 0.1% to 0.3%

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | | Modulus, Msi | | Poisson's Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized | Measured | Normalized | |
| AITR1392-8HG-FT-A-MH1-ETW-1 | 10.003 | 1.0050 | 0.1180 | 0.0098 | 4272.00 | LAB | 36.023 | 35.423 | 3.05 | 3.00 | |
| AITR1392-8HG-FT-A-MH1-ETW-2 | 10.007 | 1.0060 | 0.1180 | 0.0098 | 4639.00 | LAT | 39.079 | 38.428 | GE | | |
| AITR1392-8HG-FT-A-MH1-ETW-3 | 10.002 | 1.0050 | 0.1180 | 0.0098 | 4579.00 | LAT | 38.612 | 37.968 | 3.05 | 3.00 | |
| AITR1392-8HG-FT-A-MH1-ETW-4 | 10.006 | 1.0060 | 0.1200 | 0.0100 | NT | | | | NT | | |
| AITR1392-8HG-FT-A-MH2-ETW-1 | 10.023 | 1.0070 | 0.1220 | 0.0102 | 4543.00 | LAT | 36.979 | 37.595 | 3.07 | 3.12 | |
| AITR1392-8HG-FT-A-MH2-ETW-2 | 10.014 | 1.0070 | 0.1210 | 0.0101 | 4680.00 | LAT | 38.409 | 38.729 | 2.93 | 2.96 | |
| AITR1392-8HG-FT-A-MH2-ETW-3 | 10.019 | 1.0070 | 0.1190 | 0.0099 | 4720.00 | LAT | 39.388 | 39.060 | 3.11 | 3.09 | |
| AITR1392-8HG-FT-A-MH2-ETW-4 | 10.001 | 1.0070 | 0.1160 | 0.0097 | NT | | | | NT | | |
| AITR1392-8HG-FT-B-MH1-ETW-1 | 9.993 | 1.0070 | 0.1190 | 0.0099 | 4692.00 | LAT | 39.154 | 38.828 | 2.96 | 2.94 | |
| AITR1392-8HG-FT-B-MH1-ETW-2 | 9.999 | 1.0050 | 0.1190 | 0.0099 | 4684.00 | LAT | 39.166 | 38.839 | 3.12 | 3.09 | |
| AITR1392-8HG-FT-B-MH1-ETW-3 | 9.990 | 1.0030 | 0.1180 | 0.0098 | 4701.00 | LAT | 39.720 | 39.058 | 3.11 | 3.05 | |
| AITR1392-8HG-FT-B-MH1-ETW-4 | 9.994 | 1.0020 | 0.1180 | 0.0098 | NT | | | | NT | | |
| AITR1392-8HG-FT-B-MH2-ETW-1 | 10.010 | 1.0070 | 0.1210 | 0.0101 | 4917.00 | LAT | 40.354 | 40.690 | 3.03 | 3.06 | |
| AITR1392-8HG-FT-B-MH2-ETW-2 | 10.013 | 1.0070 | 0.1170 | 0.0098 | 4820.00 | LAT | 40.910 | 39.887 | 3.08 | 3.00 | |
| AITR1392-8HG-FT-B-MH2-ETW-3 | 10.016 | 1.0070 | 0.1210 | 0.0101 | 4822.00 | LAT | 39.574 | 39.904 | 3.04 | 3.06 | |
| AITR1392-8HG-FT-B-MH2-ETW-4 | 10.009 | 1.0060 | 0.1200 | 0.0100 | NT | | | | NT | | |
| AITR1392-8HG-FT-C-MH1-ETW-1 | 10.015 | 1.0070 | 0.1150 | 0.0096 | 4679.00 | LAT | 40.404 | 38.721 | 3.20 | 3.07 | |
| AITR1392-8HG-FT-C-MH1-ETW-2 | 10.021 | 1.0090 | 0.1180 | 0.0098 | 4830.00 | LAT | 40.567 | 39.891 | 3.17 | 3.12 | |
| AITR1392-8HG-FT-C-MH1-ETW-3 | 10.010 | 1.0080 | 0.1160 | 0.0097 | 4741.00 | LAT | 40.546 | 39.195 | 3.03 | 2.93 | |
| AITR1392-8HG-FT-C-MH1-ETW-4 | 10.020 | 1.0080 | 0.1170 | 0.0098 | NT | | | | NT | | |
| AITR1392-8HG-FT-C-MH2-ETW-1 | 10.015 | 1.0060 | 0.1190 | 0.0099 | 4769.00 | LAT | 39.837 | 39.505 | 3.16 | 3.13 | |
| AITR1392-8HG-FT-C-MH2-ETW-2 | 10.009 | 1.0070 | 0.1190 | 0.0099 | 4691.00 | LAT | 39.146 | 38.820 | 3.11 | 3.09 | |
| AITR1392-8HG-FT-C-MH2-ETW-3 | 10.017 | 1.0070 | 0.1200 | 0.0100 | 4491.00 | LAT | 37.165 | 37.165 | 3.12 | 3.12 | |
| AITR1392-8HG-FT-C-MH2-ETW-4 | 10.024 | 1.0070 | 0.1200 | 0.0100 | NT | | | | NT | | |
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| Minimum | 9.9900 | 1.0020 | 0.1150 | 0.0096 | 4272.00 | | 36.023 | 35.423 | 2.934 | 2.928 | |
| Maximum | 10.0240 | 1.0090 | 0.1220 | 0.0102 | 4917.00 | | 40.910 | 40.690 | 3.202 | 3.133 | |
| Average | 10.0096 | 1.0064 | 0.1187 | 0.0099 | 4681.67 | | 39.169 | 38.761 | 3.079 | 3.048 | |
| Standard Deviation | 0.0096 | 0.0015 | 0.0018 | 0.0001 | 146.57 | | 1.337 | 1.196 | 0.070 | 0.067 | |
| Coefficient of Variation (%) | 0.10 | 0.15 | 1.48 | 1.48 | 3.13 | | 3.41 | 3.08 | 2.29 | 2.18 | |
| No. Specimens | 24 | 24 | 24 | 24 | 18 | | 18 | 18 | 17 | 17 | |

**Notes:**
NT=Not Tested
NR=No Result
GE=Gage Error
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | FT | MH | ETW2 | | | | | | |

**Test Group: AITR1392-8HG-FT-MH-ETW2**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01 #Plies: 12

Test Type: Fill Tensile Condition: ETW2

Test Method: MP1112 (ASTMD3039) Modulus/Poisson's Range: Chord 0.1% to 0.3%

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | | Modulus, Msi | | Poisson's Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized | Measured | Normalized | |
| AITR1392-8HG-FT-A-MH1-ETW2-1 | 10.006 | 1.0070 | 0.1200 | 0.0100 | 4391.00 | LAB | 36.337 | 36.337 | 3.57 | 3.57 | |
| AITR1392-8HG-FT-A-MH1-ETW2-2 | 10.008 | 1.0050 | 0.1210 | 0.0101 | 4237.00 | LAB | 34.842 | 35.133 | 3.35 | 3.37 | |
| AITR1392-8HG-FT-A-MH1-ETW2-3 | 10.009 | 1.0070 | 0.1170 | 0.0098 | 4499.00 | LAT | 38.186 | 37.231 | 3.74 | 3.65 | |
| AITR1392-8HG-FT-A-MH1-ETW2-4 | 10.000 | 1.0070 | 0.1200 | 0.0100 | NT | | | | NT | | |
| AITR1392-8HG-FT-A-MH2-ETW2-1 | 10.012 | 1.0080 | 0.1180 | 0.0098 | 3925.00 | LAT | 32.999 | 32.449 | 3.61 | 3.55 | |
| AITR1392-8HG-FT-A-MH2-ETW2-2 | 10.001 | 1.0050 | 0.1150 | 0.0096 | 4390.00 | LAT | 37.984 | 36.401 | 4.13 | 3.96 | |
| AITR1392-8HG-FT-A-MH2-ETW2-3 | 10.016 | 1.0070 | 0.1170 | 0.0098 | 4255.00 | LAT | 36.115 | 35.212 | 4.29 | 4.18 | |
| AITR1392-8HG-FT-A-MH2-ETW2-4 | 10.006 | 1.0050 | 0.1190 | 0.0099 | NT | | | | NT | | |
| AITR1392-8HG-FT-B-MH1-ETW2-1 | 9.996 | 1.0020 | 0.1230 | 0.0103 | 4441.00 | LAT | 36.034 | 36.934 | 3.72 | 3.81 | |
| AITR1392-8HG-FT-B-MH1-ETW2-2 | 9.997 | 1.0050 | 0.1160 | 0.0097 | 4226.00 | LAT | 36.250 | 35.041 | 4.36 | 4.21 | |
| AITR1392-8HG-FT-B-MH1-ETW2-3 | 10.000 | 1.0060 | 0.1220 | 0.0102 | 4551.00 | LAT | 37.081 | 37.699 | 4.11 | 4.18 | |
| AITR1392-8HG-FT-B-MH1-ETW2-4 | 10.030 | 1.0040 | 0.1190 | 0.0099 | NT | | | | NT | | |
| AITR1392-8HG-FT-B-MH2-ETW2-1 | 10.010 | 1.0060 | 0.1180 | 0.0098 | 4551.00 | LGM | 38.338 | 37.699 | 4.20 | 4.13 | |
| AITR1392-8HG-FT-B-MH2-ETW2-2 | 10.011 | 1.0070 | 0.1170 | 0.0098 | 4628.00 | FGM | 39.281 | 38.299 | GE | | |
| AITR1392-8HG-FT-B-MH2-ETW2-3 | 10.011 | 1.0070 | 0.1180 | 0.0098 | 4481.00 | LGM | 37.711 | 37.082 | 3.85 | 3.79 | |
| AITR1392-8HG-FT-B-MH2-ETW2-4 | 10.010 | 1.0060 | 0.1200 | 0.0100 | 4516.00 | LGM | 37.409 | 37.409 | 4.46 | 4.46 | |
| AITR1392-8HG-FT-C-MH1-ETW2-1 | 10.013 | 1.0070 | 0.1160 | 0.0097 | 4814.00 | LGM | 41.212 | 39.838 | 3.55 | 3.43 | |
| AITR1392-8HG-FT-C-MH1-ETW2-2 | 10.019 | 1.0060 | 0.1180 | 0.0098 | 4453.00 | LAT | 37.512 | 36.887 | 3.69 | 3.62 | |
| AITR1392-8HG-FT-C-MH1-ETW2-3 | 10.018 | 1.0070 | 0.1160 | 0.0097 | 4508.00 | LAT | 38.592 | 37.306 | 3.60 | 3.48 | |
| AITR1392-8HG-FT-C-MH1-ETW2-4 | 10.010 | 1.0070 | 0.1160 | 0.0097 | NT | | | | NT | | |
| AITR1392-8HG-FT-C-MH2-ETW2-1 | 10.015 | 1.0050 | 0.1160 | 0.0097 | 4543.00 | LAT | 38.969 | 37.670 | 3.87 | 3.74 | |
| AITR1392-8HG-FT-C-MH2-ETW2-2 | 10.016 | 1.0010 | 0.1200 | 0.0100 | 4328.00 | LAT | 36.031 | 36.031 | 3.71 | 3.71 | |
| AITR1392-8HG-FT-C-MH2-ETW2-3 | 10.016 | 1.0070 | 0.1200 | 0.0100 | 4669.00 | LAT | 38.638 | 38.638 | 3.61 | 3.61 | |
| AITR1392-8HG-FT-C-MH2-ETW2-4 | 10.015 | 1.0070 | 0.1170 | 0.0098 | NT | | | | NT | | |
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| Minimum | 9.9960 | 1.0010 | 0.1150 | 0.0096 | 3925.00 | | 32.999 | 32.449 | 3.346 | 3.374 | |
| Maximum | 10.0300 | 1.0080 | 0.1230 | 0.0103 | 4814.00 | | 41.212 | 39.838 | 4.458 | 4.458 | |
| Average | 10.0102 | 1.0059 | 0.1183 | 0.0099 | 4442.42 | | 37.343 | 36.805 | 3.856 | 3.803 | |
| Standard Deviation | 0.0078 | 0.0017 | 0.0021 | 0.0002 | 194.71 | | 1.814 | 1.606 | 0.322 | 0.313 | |
| Coefficient of Variation (%) | 0.08 | 0.17 | 1.79 | 1.79 | 4.38 | | 4.86 | 4.36 | 8.36 | 8.23 | |
| No. Specimens | 24 | 24 | 24 | 24 | 19 | | 19 | 19 | 18 | 18 | |

**Notes:**
NT=Not Tested
NR=No Result
GE=Gage Error
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | WC | MH | CTD | | | | | | |

**Test Group: AITR1392-8HG-WC-MH-CTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01 #Plies: 12

Test Type: Warp Compression Condition: CTD

Test Method: MP1114 (ASTMD6641) Modulus/Poisson's Range: Chord 0.1% to 0.3%

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | | Modulus, Msi | | Poisson's Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized | Measured | Normalized | |
| AITR1392-8HG-WC-A-MH1-CTD-1 | 5.508 | 0.5070 | 0.1120 | 0.0093 | 6490.81 | BGB | 114.307 | 106.687 | 4.22 | 3.94 | 0.150 |
| AITR1392-8HG-WC-A-MH1-CTD-2 | 5.507 | 0.5070 | 0.1140 | 0.0095 | 5541.06 | HGM | 95.869 | 91.076 | 4.70 | 4.46 | 0.161 |
| AITR1392-8HG-WC-A-MH1-CTD-3 | 5.507 | 0.5060 | 0.1170 | 0.0098 | 6092.48 | BGM | 102.910 | 100.337 | 4.19 | 4.09 | 0.147 |
| AITR1392-8HG-WC-A-MH1-CTD-4 | 5.506 | 0.5060 | 0.1140 | 0.0095 | NT | | | | NT | | NT |
| AITR1392-8HG-WC-A-MH2-CTD-1 | 5.509 | 0.5000 | 0.1190 | 0.0099 | 6302.26 | BGM | 105.920 | 105.038 | 4.96 | 4.92 | GE |
| AITR1392-8HG-WC-A-MH2-CTD-2 | 5.507 | 0.5080 | 0.1190 | 0.0099 | 6456.85 | BGM | 106.810 | 105.919 | 4.22 | 4.18 | 0.177 |
| AITR1392-8HG-WC-A-MH2-CTD-3 | 5.508 | 0.5080 | 0.1200 | 0.0100 | 6902.60 | BGM | 113.232 | 113.232 | 4.28 | 4.28 | 0.154 |
| AITR1392-8HG-WC-A-MH2-CTD-4 | 5.507 | 0.5080 | 0.1200 | 0.0100 | NT | | | | NT | | NT |
| AITR1392-8HG-WC-B-MH1-CTD-1 | 5.508 | 0.5060 | 0.1150 | 0.0096 | 6451.08 | BGM | 110.862 | 106.243 | 4.85 | 4.64 | 0.121 |
| AITR1392-8HG-WC-B-MH1-CTD-2 | 5.510 | 0.5060 | 0.1180 | 0.0098 | 6340.14 | BGM | 106.186 | 104.416 | 4.06 | 3.99 | 0.152 |
| AITR1392-8HG-WC-B-MH1-CTD-3 | 5.509 | 0.5060 | 0.1200 | 0.0100 | 6063.04 | BGM | 99.852 | 99.852 | 4.24 | 4.24 | 0.155 |
| AITR1392-8HG-WC-B-MH1-CTD-4 | 5.509 | 0.5060 | 0.1180 | 0.0098 | NT | | | | NT | | NT |
| AITR1392-8HG-WC-B-MH2-CTD-1 | 5.507 | 0.5060 | 0.1210 | 0.0101 | 6775.75 | HGM | 110.668 | 111.590 | 3.73 | 3.76 | 0.161 |
| AITR1392-8HG-WC-B-MH2-CTD-2 | 5.507 | 0.5050 | 0.1200 | 0.0100 | 6273.06 | BGM | 103.516 | 103.516 | 4.27 | 4.27 | 0.153 |
| AITR1392-8HG-WC-B-MH2-CTD-3 | 5.509 | 0.5050 | 0.1140 | 0.0095 | 7167.42 | HGM | 124.499 | 118.274 | 4.30 | 4.09 | 0.151 |
| AITR1392-8HG-WC-B-MH2-CTD-4 | 5.510 | 0.5050 | 0.1200 | 0.0100 | NT | | | | NT | | NT |
| AITR1392-8HG-WC-C-MH1-CTD-1 | 5.507 | 0.5070 | 0.1210 | 0.0101 | 6635.66 | BGM | 108.166 | 109.067 | 4.25 | 4.29 | 0.161 |
| AITR1392-8HG-WC-C-MH1-CTD-2 | 5.508 | 0.5070 | 0.1140 | 0.0095 | 5854.04 | BGM | 101.285 | 96.220 | 4.54 | 4.32 | 0.146 |
| AITR1392-8HG-WC-C-MH1-CTD-3 | 5.509 | 0.5080 | 0.1200 | 0.0100 | 6406.30 | BGM | 105.090 | 105.090 | 4.79 | 4.79 | GE |
| AITR1392-8HG-WC-C-MH1-CTD-4 | 5.509 | 0.5070 | 0.1210 | 0.0101 | NT | | | | NT | | NT |
| AITR1392-8HG-WC-C-MH2-CTD-1 | 5.506 | 0.5090 | 0.1110 | 0.0093 | 6094.08 | BGM | 107.862 | 99.772 | 4.37 | 4.05 | 0.146 |
| AITR1392-8HG-WC-C-MH2-CTD-2 | 5.507 | 0.5090 | 0.1200 | 0.0100 | 5762.49 | BGB | 94.343 | 94.343 | 5.14 | 5.14 | 0.152 |
| AITR1392-8HG-WC-C-MH2-CTD-3 | 5.506 | 0.5100 | 0.1190 | 0.0099 | 6319.62 | BGT | 104.129 | 103.262 | 4.07 | 4.04 | 0.165 |
| AITR1392-8HG-WC-C-MH2-CTD-4 | 5.508 | 0.5090 | 0.1190 | 0.0099 | NT | | | | NT | | NT |
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| Minimum | 5.5060 | 0.5000 | 0.1110 | 0.0093 | 5541.06 | | 94.343 | 91.076 | 3.731 | 3.762 | 0.1215 |
| Maximum | 5.5100 | 0.5100 | 0.1210 | 0.0101 | 7167.42 | | 124.499 | 118.274 | 5.136 | 5.136 | 0.1767 |
| Average | 5.5078 | 0.5067 | 0.1178 | 0.0098 | 6329.37 | | 106.417 | 104.108 | 4.399 | 4.304 | 0.1533 |
| Standard Deviation | 0.0012 | 0.0020 | 0.0031 | 0.0003 | 401.63 | | 7.001 | 6.688 | 0.359 | 0.362 | 0.0117 |
| Coefficient of Variation (%) | 0.02 | 0.39 | 2.61 | 2.61 | 6.35 | | 6.58 | 6.42 | 8.16 | 8.41 | 7.63 |
| No. Specimens | 24 | 24 | 24 | 24 | 18 | | 18 | 18 | 18 | 18 | 16 |

**Notes:**
NT=Not Tested
NR=No Result
GE=Gage Error
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | WC | MH | RTD | | | | | | |

**Test Group: AITR1392-8HG-WC-MH-RTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01 #Plies: 12

Test Type: Warp Compression Condition: RTD

Test Method: MP1114 (ASTMD6641) Modulus/Poisson's Range: Chord 0.1% to 0.3%

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | | Modulus, Msi | | Poisson's Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized | Measured | Normalized | |
| AITR1392-8HG-WC-A-MH1-RTD-1 | 5.500 | 0.5066 | 0.1146 | 0.0096 | 4762.00 | BGT | 82.024 | 78.333 | 3.49 | 3.33 | 0.121 |
| AITR1392-8HG-WC-A-MH1-RTD-2 | 5.500 | 0.5078 | 0.1177 | 0.0098 | 4894.00 | BGT | 81.883 | 80.314 | 3.72 | 3.65 | 0.134 |
| AITR1392-8HG-WC-A-MH1-RTD-3 | 5.500 | 0.5073 | 0.1174 | 0.0098 | 4819.00 | BGT | 80.914 | 79.161 | 3.69 | 3.61 | 0.128 |
| AITR1392-8HG-WC-A-MH1-RTD-4 | | | | | NT | | | | NT | | NT |
| AITR1392-8HG-WC-A-MH2-RTD-1 | 5.500 | 0.5077 | 0.1176 | 0.0098 | 5075.00 | BGB | 85.001 | 83.301 | 3.62 | 3.55 | 0.131 |
| AITR1392-8HG-WC-A-MH2-RTD-2 | 5.500 | 0.5084 | 0.1157 | 0.0096 | 4776.00 | HGM | 81.194 | 78.285 | 3.47 | 3.35 | 0.135 |
| AITR1392-8HG-WC-A-MH2-RTD-3 | 5.500 | 0.5041 | 0.1098 | 0.0092 | 4304.00 | BGM | 77.759 | 71.150 | 4.03 | 3.69 | 0.122 |
| AITR1392-8HG-WC-A-MH2-RTD-4 | | | | | NT | | | | NT | | NT |
| AITR1392-8HG-WC-B-MH1-RTD-1 | 5.500 | 0.5061 | 0.1156 | 0.0096 | 4828.00 | BGT | 82.523 | 79.497 | 3.43 | 3.31 | 0.125 |
| AITR1392-8HG-WC-B-MH1-RTD-2 | 5.500 | 0.5067 | 0.1193 | 0.0099 | 5094.00 | BGB | 84.269 | 83.777 | 3.68 | 3.65 | 0.130 |
| AITR1392-8HG-WC-B-MH1-RTD-3 | 5.500 | 0.5064 | 0.1157 | 0.0096 | 4567.00 | BGT | 77.948 | 75.155 | 3.58 | 3.45 | 0.123 |
| AITR1392-8HG-WC-B-MH1-RTD-4 | | | | | NT | | | | NT | | NT |
| AITR1392-8HG-WC-B-MH2-RTD-1 | 5.500 | 0.5057 | 0.1184 | 0.0099 | 5305.00 | BGT | 88.601 | 87.420 | 3.56 | 3.51 | 0.119 |
| AITR1392-8HG-WC-B-MH2-RTD-2 | 5.500 | 0.5084 | 0.1170 | 0.0098 | 5358.00 | HGM | 90.076 | 87.825 | GE | | GE |
| AITR1392-8HG-WC-B-MH2-RTD-3 | 5.500 | 0.5073 | 0.1213 | 0.0101 | 5275.00 | BGB | 85.723 | 86.652 | 3.32 | 3.36 | 0.108 |
| AITR1392-8HG-WC-B-MH2-RTD-4 | | | | | NT | | | | NT | | NT |
| AITR1392-8HG-WC-C-MH1-RTD-1 | 5.500 | 0.5080 | 0.1201 | 0.0100 | 4728.00 | HGM | 77.494 | 77.559 | 3.45 | 3.45 | 0.119 |
| AITR1392-8HG-WC-C-MH1-RTD-2 | 5.500 | 0.5060 | 0.1189 | 0.0099 | 4609.00 | BGM | 76.608 | 75.906 | 3.53 | 3.50 | 0.124 |
| AITR1392-8HG-WC-C-MH1-RTD-3 | 5.500 | 0.5060 | 0.1217 | 0.0101 | 5159.00 | BGM | 83.777 | 84.964 | 3.40 | 3.45 | 0.118 |
| AITR1392-8HG-WC-C-MH1-RTD-4 | | | | | NT | | | | NT | | NT |
| AITR1392-8HG-WC-C-MH2-RTD-1 | 5.500 | 0.5070 | 0.1214 | 0.0101 | 5346.00 | BGM | 86.856 | 87.870 | 3.36 | 3.40 | 0.125 |
| AITR1392-8HG-WC-C-MH2-RTD-2 | 5.500 | 0.5070 | 0.1207 | 0.0101 | 5008.00 | BGM | 81.837 | 82.314 | 3.34 | 3.36 | 0.112 |
| AITR1392-8HG-WC-C-MH2-RTD-3 | 5.500 | 0.5080 | 0.1138 | 0.0095 | 4927.00 | BGB | 85.227 | 80.823 | 3.79 | 3.59 | 0.120 |
| AITR1392-8HG-WC-C-MH2-RTD-4 | | | | | NT | | | | NT | | NT |
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| Minimum | 5.5000 | 0.5041 | 0.1098 | 0.0092 | 4304.00 | | 76.608 | 71.150 | 3.319 | 3.309 | 0.1082 |
| Maximum | 5.5000 | 0.5084 | 0.1217 | 0.0101 | 5358.00 | | 90.076 | 87.870 | 4.034 | 3.691 | 0.1350 |
| Average | 5.5000 | 0.5069 | 0.1176 | 0.0098 | 4935.22 | | 82.762 | 81.128 | 3.556 | 3.483 | 0.1232 |
| Standard Deviation | 0.0000 | 0.0011 | 0.0031 | 0.0003 | 293.59 | | 3.831 | 4.769 | 0.185 | 0.124 | 0.0071 |
| Coefficient of Variation (%) | 0.00 | 0.22 | 2.62 | 2.62 | 5.95 | | 4.63 | 5.88 | 5.20 | 3.56 | 5.76 |
| No. Specimens | 18 | 18 | 18 | 18 | 18 | | 18 | 18 | 17 | 17 | 17 |

**Notes:**
NT=Not Tested
NR=No Result
GE=Gage Error
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | WC | MH | ETW | | | | | | |

**Test Group: AITR1392-8HG-WC-MH-ETW**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01 #Plies: 12

Test Type: Warp Compression Condition: ETW

Test Method: MP1114 (ASTMD6641) Modulus/Poisson's Range: Chord 0.1% to 0.3%

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | | Modulus, Msi | | Poisson's Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized | Measured | Normalized | |
| AITR1392-8HG-WC-A-MH1-ETW-1 | 5.511 | 0.5070 | 0.1120 | 0.0093 | 2826.00 | HAT | 49.768 | 46.450 | 4.37 | 4.08 | 0.130 |
| AITR1392-8HG-WC-A-MH1-ETW-2 | 5.510 | 0.5080 | 0.1180 | 0.0098 | 2842.00 | HGB | 47.411 | 46.621 | 4.18 | 4.11 | 0.132 |
| AITR1392-8HG-WC-A-MH1-ETW-3 | 5.514 | 0.5080 | 0.1180 | 0.0098 | 2401.00 | BGM | 40.054 | 39.386 | 3.41 | 3.35 | 0.109 |
| AITR1392-8HG-WC-A-MH1-ETW-4 | 5.512 | 0.5070 | 0.1150 | 0.0096 | NT | | | | NT | | NT |
| AITR1392-8HG-WC-A-MH2-ETW-1 | 5.512 | 0.5020 | 0.1130 | 0.0094 | 2513.00 | BGM | 44.301 | 41.716 | 4.32 | 4.07 | 0.124 |
| AITR1392-8HG-WC-A-MH2-ETW-2 | 5.510 | 0.5080 | 0.1140 | 0.0095 | 2463.00 | BGM | 42.530 | 40.404 | 4.34 | 4.12 | GE |
| AITR1392-8HG-WC-A-MH2-ETW-3 | 5.513 | 0.5020 | 0.1200 | 0.0100 | 2582.00 | BGM | 42.862 | 42.862 | 3.88 | 3.88 | 0.118 |
| AITR1392-8HG-WC-A-MH2-ETW-4 | 5.513 | 0.5040 | 0.1220 | 0.0102 | NT | | | | NT | | NT |
| AITR1392-8HG-WC-B-MH1-ETW-1 | 5.506 | 0.5070 | 0.1150 | 0.0096 | 2615.00 | LGM | 44.850 | 42.982 | 3.77 | 3.61 | 0.121 |
| AITR1392-8HG-WC-B-MH1-ETW-2 | 5.511 | 0.5050 | 0.1180 | 0.0098 | 2663.00 | LGM | 44.689 | 43.944 | 4.09 | 4.02 | 0.125 |
| AITR1392-8HG-WC-B-MH1-ETW-3 | 5.514 | 0.5060 | 0.1180 | 0.0098 | 3004.00 | LGM | 50.312 | 49.473 | 3.93 | 3.87 | 0.118 |
| AITR1392-8HG-WC-B-MH1-ETW-4 | 5.512 | 0.5060 | 0.1160 | 0.0097 | NT | | | | NT | | NT |
| AITR1392-8HG-WC-B-MH2-ETW-1 | 5.513 | 0.5060 | 0.1180 | 0.0098 | 2921.00 | BGB | 48.921 | 48.106 | 3.84 | 3.78 | 0.101 |
| AITR1392-8HG-WC-B-MH2-ETW-2 | 5.511 | 0.5060 | 0.1180 | 0.0098 | 3002.00 | BGT | 50.278 | 49.440 | GE | | 0.091 |
| AITR1392-8HG-WC-B-MH2-ETW-3 | 5.510 | 0.5060 | 0.1170 | 0.0098 | 3080.00 | BGT | 52.025 | 50.725 | 3.82 | 3.72 | GE |
| AITR1392-8HG-WC-B-MH2-ETW-4 | 5.512 | 0.5070 | 0.1200 | 0.0100 | NT | | | | NT | | NT |
| AITR1392-8HG-WC-C-MH1-ETW-1 | 5.512 | 0.5060 | 0.1210 | 0.0101 | 2805.00 | HGT | 45.814 | 46.196 | 3.60 | 3.63 | 0.106 |
| AITR1392-8HG-WC-C-MH1-ETW-2 | 5.511 | 0.5060 | 0.1150 | 0.0096 | 2490.00 | HGM | 42.791 | 41.008 | 3.77 | 3.61 | 0.091 |
| AITR1392-8HG-WC-C-MH1-ETW-3 | 5.510 | 0.5070 | 0.1100 | 0.0092 | 2357.00 | BGM | 42.263 | 38.741 | 3.97 | 3.64 | 0.190 |
| AITR1392-8HG-WC-C-MH1-ETW-4 | 5.511 | 0.5070 | 0.1210 | 0.0101 | NT | | | | NT | | NT |
| AITR1392-8HG-WC-C-MH2-ETW-1 | 5.510 | 0.5080 | 0.1160 | 0.0097 | 2569.00 | HGB | 43.596 | 42.142 | 4.29 | 4.14 | 0.124 |
| AITR1392-8HG-WC-C-MH2-ETW-2 | 5.511 | 0.5090 | 0.1170 | 0.0098 | 3052.00 | HGB | 51.248 | 49.967 | 3.76 | 3.67 | 0.109 |
| AITR1392-8HG-WC-C-MH2-ETW-3 | 5.504 | 0.5060 | 0.1210 | 0.0101 | 2919.00 | HAT | 47.676 | 48.073 | 3.64 | 3.67 | 0.111 |
| AITR1392-8HG-WC-C-MH2-ETW-4 | 5.510 | 0.5090 | 0.1180 | 0.0098 | NT | | | | NT | | NT |
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| Minimum | 5.5040 | 0.5020 | 0.1100 | 0.0092 | 2357.00 | | 40.054 | 38.741 | 3.407 | 3.350 | 0.0907 |
| Maximum | 5.5140 | 0.5090 | 0.1220 | 0.0102 | 3080.00 | | 52.025 | 50.725 | 4.373 | 4.144 | 0.1904 |
| Average | 5.5110 | 0.5064 | 0.1171 | 0.0098 | 2728.00 | | 46.188 | 44.902 | 3.940 | 3.822 | 0.1188 |
| Standard Deviation | 0.0022 | 0.0018 | 0.0030 | 0.0003 | 238.09 | | 3.605 | 3.901 | 0.285 | 0.236 | 0.0228 |
| Coefficient of Variation (%) | 0.04 | 0.35 | 2.58 | 2.58 | 8.73 | | 7.80 | 8.69 | 7.23 | 6.17 | 19.17 |
| No. Specimens | 24 | 24 | 24 | 24 | 18 | | 18 | 18 | 17 | 17 | 16 |

**Notes:**

NT=Not Tested
NR=No Result
GE=Gage Error
FM=Failure Mode Unacceptable

WC-B-MH2-ETW-1:Modulus from 2000 to 4000

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | WC | MH | ETW2 | | | | | | |

**Test Group: AITR1392-8HG-WC-MH-ETW2**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01 #Plies: 12

Test Type: Warp Compression Condition: ETW2

Test Method: MP1114 (ASTMD6641) Modulus/Poisson's Range: Chord 0.1% to 0.3%

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | | Modulus, Msi | | Poisson's Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized | Measured | Normalized | |
| AITR1392-8HG-WC-A-MH1-ETW2-1 | 5.513 | 0.5070 | 0.1100 | 0.0092 | 2329.00 | HGM | 41.761 | 38.281 | GE | | GE |
| AITR1392-8HG-WC-A-MH1-ETW2-2 | 5.513 | 0.5080 | 0.1180 | 0.0098 | 2670.00 | HGM | 44.542 | 43.799 | GE | | GE |
| AITR1392-8HG-WC-A-MH1-ETW2-3 | 5.514 | 0.5070 | 0.1180 | 0.0098 | 2594.00 | BGM | 43.359 | 42.636 | GE | | GE |
| AITR1392-8HG-WC-A-MH1-ETW2-4 | 5.513 | 0.5080 | 0.1180 | 0.0098 | NT | | | | NT | | NT |
| AITR1392-8HG-WC-A-MH2-ETW2-1 | 5.513 | 0.5080 | 0.1220 | 0.0102 | NT | | | | NT | | NT |
| AITR1392-8HG-WC-A-MH2-ETW2-2 | 5.512 | 0.5030 | 0.1190 | 0.0099 | 2571.00 | HGM | 42.952 | 42.594 | GE | | GE |
| AITR1392-8HG-WC-A-MH2-ETW2-3 | 5.516 | 0.5030 | 0.1170 | 0.0098 | 2088.00 | HGB | 35.479 | 34.592 | GE | | GE |
| AITR1392-8HG-WC-A-MH2-ETW2-4 | 5.514 | 0.5000 | 0.1220 | 0.0102 | 2390.00 | HGT | 39.180 | 39.833 | GE | | GE |
| AITR1392-8HG-WC-B-MH1-ETW2-1 | 5.512 | 0.5060 | 0.1180 | 0.0098 | 2345.00 | BGM | 39.274 | 38.620 | GE | | GE |
| AITR1392-8HG-WC-B-MH1-ETW2-2 | 5.513 | 0.5060 | 0.1150 | 0.0096 | 2157.00 | HGM | 37.068 | 35.524 | GE | | GE |
| AITR1392-8HG-WC-B-MH1-ETW2-3 | 5.512 | 0.5060 | 0.1180 | 0.0098 | 2483.00 | HGM | 41.586 | 40.893 | GE | | GE |
| AITR1392-8HG-WC-B-MH1-ETW2-4 | 5.493 | 0.5000 | 0.1170 | 0.0098 | NT | | | | NT | | NT |
| AITR1392-8HG-WC-B-MH2-ETW2-1 | 5.510 | 0.5070 | 0.1200 | 0.0100 | 2748.00 | BGM | 45.168 | 45.168 | GE | | GE |
| AITR1392-8HG-WC-B-MH2-ETW2-2 | 5.514 | 0.5060 | 0.1200 | 0.0100 | 2870.00 | BGM | 47.266 | 47.266 | GE | | GE |
| AITR1392-8HG-WC-B-MH2-ETW2-3 | 5.514 | 0.5070 | 0.1200 | 0.0100 | 3101.00 | HGM | 50.970 | 50.970 | GE | | GE |
| AITR1392-8HG-WC-B-MH2-ETW2-4 | 5.512 | 0.5060 | 0.1200 | 0.0100 | NT | | | | NT | | NT |
| AITR1392-8HG-WC-C-MH1-ETW2-1 | 5.512 | 0.5070 | 0.1150 | 0.0096 | 2161.00 | BGM | 37.064 | 35.519 | GE | | GE |
| AITR1392-8HG-WC-C-MH1-ETW2-2 | 5.509 | 0.5070 | 0.1210 | 0.0101 | 2362.00 | HGT | 38.502 | 38.823 | GE | | GE |
| AITR1392-8HG-WC-C-MH1-ETW2-3 | 5.511 | 0.5070 | 0.1140 | 0.0095 | 2340.00 | HGB | 40.486 | 38.462 | GE | | GE |
| AITR1392-8HG-WC-C-MH1-ETW2-4 | 5.505 | 0.5070 | 0.1170 | 0.0098 | NT | | | | NT | | NT |
| AITR1392-8HG-WC-C-MH2-ETW2-1 | 5.511 | 0.5090 | 0.1200 | 0.0100 | 2349.00 | HGM | 38.458 | 38.458 | GE | | GE |
| AITR1392-8HG-WC-C-MH2-ETW2-2 | 5.515 | 0.5100 | 0.1190 | 0.0099 | 2389.00 | BGM | 39.364 | 39.036 | GE | | GE |
| AITR1392-8HG-WC-C-MH2-ETW2-3 | 5.511 | 0.5090 | 0.1200 | 0.0100 | 2267.00 | BGM | 37.115 | 37.115 | GE | | GE |
| AITR1392-8HG-WC-C-MH2-ETW2-4 | 5.510 | 0.5090 | 0.1160 | 0.0097 | NT | | | | NT | | NT |
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| Minimum | 5.4930 | 0.5000 | 0.1100 | 0.0092 | 2088.00 | | 35.479 | 34.592 | | | |
| Maximum | 5.5160 | 0.5100 | 0.1220 | 0.0102 | 3101.00 | | 50.970 | 50.970 | | | |
| Average | 5.5113 | 0.5064 | 0.1181 | 0.0098 | 2456.33 | | 41.089 | 40.422 | | | |
| Standard Deviation | 0.0045 | 0.0026 | 0.0027 | 0.0002 | 262.35 | | 4.038 | 4.306 | | | |
| Coefficient of Variation (%) | 0.08 | 0.50 | 2.31 | 2.31 | 10.68 | | 9.83 | 10.65 | | | |
| No. Specimens | 24 | 24 | 24 | 24 | 18 | | 18 | 18 | | | |

**Notes:**
NT=Not Tested
NR=No Result
GE=Gage Error
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | FC | MH | CTD | | | | | | |

**Test Group: AITR1392-8HG-FC-MH-CTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01 #Plies: 12

Test Type: Fill Compression Condition: CTD

Test Method: MP1114 (ASTMD6641) Modulus/Poisson's Range: Chord 0.1% to 0.3%

# Retest Data

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | | Modulus, Msi | | Poisson's Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized | Measured | Normalized | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH1-1-CTD-1 | 5.502 | 0.5015 | 0.1261 | 0.0105 | 5630.00 | BGM | 89.018 | 93.556 | 3.43 | 3.60 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH1-1-CTD-2 | 5.502 | 0.5015 | 0.1261 | 0.0105 | 5709.54 | BAT | 90.279 | 94.868 | 3.62 | 3.81 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH1-1-CTD-3 | 5.502 | 0.5016 | 0.1261 | 0.0105 | 5668.22 | BGM | 89.599 | 94.178 | 3.52 | 3.70 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH2-1-CTD-1 | 5.501 | 0.5012 | 0.1274 | 0.0106 | 5605.32 | BAT | 87.791 | 93.192 | 3.54 | 3.76 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH2-1-CTD-2 | 5.500 | 0.5012 | 0.1276 | 0.0106 | 5839.63 | BAT | 91.323 | 97.094 | 3.41 | 3.62 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH2-1-CTD-3 | 5.501 | 0.5012 | 0.1276 | 0.0106 | 5807.73 | BAT | 90.794 | 96.557 | 3.54 | 3.77 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH1-1-CTD-1 | 5.496 | 0.5010 | 0.1207 | 0.0101 | 5578.47 | BAT | 92.282 | 92.795 | 3.67 | 3.69 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH1-1-CTD-2 | 5.496 | 0.5018 | 0.1205 | 0.0100 | 5278.47 | BAT | 87.289 | 87.665 | 3.65 | 3.66 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH1-1-CTD-3 | 5.497 | 0.5015 | 0.1213 | 0.0101 | 5835.06 | BAT | 95.898 | 96.963 | 3.73 | 3.77 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH2-1-CTD-1 | 5.501 | 0.4984 | 0.1199 | 0.0100 | 5089.20 | BAT | 85.187 | 85.092 | 3.70 | 3.69 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH2-1-CTD-2 | 5.500 | 0.4990 | 0.1203 | 0.0100 | 5533.12 | BGM | 92.163 | 92.406 | 3.64 | 3.65 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH2-1-CTD-3 | 5.501 | 0.4989 | 0.1202 | 0.0100 | 5082.26 | BAT | 84.770 | 84.900 | 3.69 | 3.69 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH1-1-CTD-1 | 5.498 | 0.4991 | 0.1215 | 0.0101 | 5444.84 | BAT | 89.823 | 90.908 | 3.67 | 3.72 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH1-1-CTD-2 | 5.502 | 0.4988 | 0.1214 | 0.0101 | 5750.66 | BAB | 94.964 | 96.072 | 3.65 | 3.69 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH1-1-CTD-3 | 5.498 | 0.4984 | 0.1212 | 0.0101 | 5376.73 | BAT | 89.007 | 89.897 | 3.73 | 3.77 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH2-1-CTD-1 | 5.501 | 0.4978 | 0.1220 | 0.0102 | 5212.57 | BGM | 85.865 | 87.260 | 3.68 | 3.74 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH2-1-CTD-2 | 5.501 | 0.4981 | 0.1225 | 0.0102 | 5248.51 | BAT | 85.993 | 87.809 | 3.61 | 3.68 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH2-1-CTD-3 | 5.501 | 0.4983 | 0.1223 | 0.0102 | 5501.29 | BAT | 90.261 | 92.004 | 3.60 | 3.66 | |
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| Minimum | 5.4955 | 0.4978 | 0.1199 | 0.0100 | 5082.26 | | 84.770 | 84.900 | 3.408 | 3.602 | |
| Maximum | 5.5020 | 0.5018 | 0.1276 | 0.0106 | 5839.63 | | 95.898 | 97.094 | 3.735 | 3.806 | |
| Average | 5.4999 | 0.5000 | 0.1230 | 0.0103 | 5510.65 | | 89.573 | 91.845 | 3.614 | 3.704 | |
| Standard Deviation | 0.0020 | 0.0015 | 0.0029 | 0.0002 | 248.17 | | 3.130 | 3.968 | 0.094 | 0.055 | |
| Coefficient of Variation (%) | 0.04 | 0.30 | 2.33 | 2.33 | 4.50 | | 3.49 | 4.32 | 2.61 | 1.49 | |
| No. Specimens | 18 | 18 | 18 | 18 | 18 | | 18 | 18 | 18 | 18 | |

**Notes:**

NT=Not Tested

NR=No Result

GE=Gage Error

FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | FC | MH | RTD | | | | | | |

**Test Group: AITR1392-8HG-FC-MH-RTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01 #Plies: 12

Test Type: Fill Compression Condition: RTD

Test Method: MP1114 (ASTMD6641) Modulus/Poisson's Range: Chord 0.1% to 0.3%

# Retest Data

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | | Modulus, Msi | | Poisson's Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized | Measured | Normalized | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH1-1-RTD-1 | 5.501 | 0.5013 | 0.1211 | 0.0101 | 4421.74 | BAT | 72.874 | 73.512 | 3.39 | 3.42 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH1-1-RTD-2 | 5.502 | 0.5013 | 0.1227 | 0.0102 | 4298.60 | BAT | 69.900 | 71.453 | 3.41 | 3.49 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH1-1-RTD-3 | 5.503 | 0.5015 | 0.1245 | 0.0104 | 4640.95 | BAT | 74.323 | 77.120 | 3.34 | 3.47 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH2-1-RTD-1 | 5.502 | 0.5013 | 0.1267 | 0.0106 | 4731.79 | BAT | 74.479 | 78.659 | 3.27 | 3.45 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH2-1-RTD-2 | 5.502 | 0.5013 | 0.1267 | 0.0106 | 4502.65 | BAT | 70.910 | 74.850 | 3.24 | 3.42 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH2-1-RTD-3 | 5.501 | 0.5010 | 0.1272 | 0.0106 | 4562.44 | BAB | 71.570 | 75.884 | 3.29 | 3.49 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH1-1-RTD-1 | 5.499 | 0.5014 | 0.1202 | 0.0100 | 3944.58 | BAT | 65.453 | 65.562 | 3.42 | 3.43 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH1-1-RTD-2 | 5.498 | 0.5016 | 0.1201 | 0.0100 | 4142.11 | BAT | 68.758 | 68.815 | 3.40 | 3.40 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH1-1-RTD-3 | 5.498 | 0.5014 | 0.1198 | 0.0100 | 4207.92 | BAB | 70.040 | 69.943 | 3.43 | 3.43 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH2-1-RTD-1 | 5.500 | 0.4987 | 0.1198 | 0.0100 | 4323.55 | BGM | 72.383 | 72.242 | 3.44 | 3.43 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH2-1-RTD-2 | 5.502 | 0.4990 | 0.1196 | 0.0100 | 4131.61 | BAT | 69.236 | 69.005 | 3.44 | 3.43 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH2-1-RTD-3 | 5.501 | 0.4990 | 0.1197 | 0.0100 | 3758.15 | HAT | 62.908 | 62.759 | 3.45 | 3.44 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH1-1-RTD-1 | 5.498 | 0.4992 | 0.1206 | 0.0101 | 3861.03 | BAT | 64.122 | 64.460 | 3.44 | 3.45 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH1-1-RTD-2 | 5.498 | 0.4987 | 0.1217 | 0.0101 | 3831.92 | BAT | 63.133 | 64.027 | 3.44 | 3.49 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH1-1-RTD-3 | 5.498 | 0.4989 | 0.1214 | 0.0101 | 3914.86 | HAT | 64.653 | 65.398 | 3.49 | 3.53 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH2-1-RTD-1 | 5.500 | 0.4981 | 0.1220 | 0.0102 | 4147.79 | BGM | 68.265 | 69.394 | 3.39 | 3.44 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH2-1-RTD-2 | 5.500 | 0.4977 | 0.1215 | 0.0101 | 4238.97 | BGM | 70.100 | 70.976 | 3.39 | 3.43 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH2-1-RTD-3 | 5.502 | 0.4980 | 0.1221 | 0.0102 | 4148.60 | HAT | 68.243 | 69.428 | 3.41 | 3.47 | |
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| Minimum | 5.4975 | 0.4977 | 0.1196 | 0.0100 | 3758.15 | | 62.908 | 62.759 | 3.236 | 3.400 | |
| Maximum | 5.5025 | 0.5016 | 0.1272 | 0.0106 | 4731.79 | | 74.479 | 78.659 | 3.490 | 3.531 | |
| Average | 5.5002 | 0.5000 | 0.1221 | 0.0102 | 4211.63 | | 68.964 | 70.194 | 3.393 | 3.450 | |
| Standard Deviation | 0.0017 | 0.0015 | 0.0025 | 0.0002 | 284.82 | | 3.648 | 4.642 | 0.067 | 0.033 | |
| Coefficient of Variation (%) | 0.03 | 0.29 | 2.08 | 2.08 | 6.76 | | 5.29 | 6.61 | 1.97 | 0.96 | |
| No. Specimens | 18 | 18 | 18 | 18 | 18 | | 18 | 18 | 18 | 18 | |

**Notes:**

NT=Not Tested

NR=No Result

GE=Gage Error

FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | FC | MH | ETD | | | | | | |

**Test Group: AITR1392-8HG-FC-MH-ETD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01 #Plies: 12

Test Type: Fill Compression Condition: ETD

Test Method: MP1114 (ASTMD6641) Modulus/Poisson's Range: Chord 0.1% to 0.3%

# Retest Data

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | | Modulus, Msi | | Poisson's Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized | Measured | Normalized | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH1-1-ETD-1 | 5.502 | 0.5015 | 0.1266 | 0.0106 | 4016.46 | HAT | 63.240 | 66.736 | 3.15 | 3.32 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH1-1-ETD-2 | 5.502 | 0.5014 | 0.1262 | 0.0105 | 3859.90 | BGM | 60.980 | 64.148 | 3.10 | 3.26 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH1-1-ETD-3 | 5.503 | 0.5010 | 0.1255 | 0.0105 | 3783.62 | HGM | 60.180 | 62.930 | 3.28 | 3.43 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH2-1-ETD-1 | 5.501 | 0.5014 | 0.1279 | 0.0107 | 3835.82 | HGM | 59.816 | 63.754 | 3.18 | 3.39 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH2-1-ETD-2 | 5.501 | 0.5013 | 0.1278 | 0.0106 | 4414.95 | BGM | 68.946 | 73.399 | 3.21 | 3.41 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH2-1-ETD-3 | 5.500 | 0.5011 | 0.1264 | 0.0105 | 4180.69 | HGM | 66.018 | 69.530 | 3.19 | 3.36 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH1-1-ETD-1 | 5.497 | 0.5010 | 0.1206 | 0.0100 | 3878.14 | HAB | 64.215 | 64.509 | 3.37 | 3.38 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH1-1-ETD-2 | 5.498 | 0.5011 | 0.1210 | 0.0101 | 3889.51 | BGM | 64.146 | 64.689 | 3.36 | 3.39 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH1-1-ETD-3 | 5.497 | 0.5016 | 0.1203 | 0.0100 | 3269.22 | BGM | 54.166 | 54.317 | 3.36 | 3.37 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH2-1-ETD-1 | 5.500 | 0.4987 | 0.1204 | 0.0100 | 3439.24 | BGM | 57.271 | 57.470 | 3.27 | 3.28 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH2-1-ETD-2 | 5.501 | 0.4985 | 0.1205 | 0.0100 | 3431.43 | HGM | 57.109 | 57.363 | 3.28 | 3.29 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH2-1-ETD-3 | 5.500 | 0.4988 | 0.1194 | 0.0100 | 3731.78 | BAT | 62.657 | 62.344 | 3.38 | 3.36 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH1-1-ETD-1 | 5.498 | 0.4991 | 0.1212 | 0.0101 | 3605.12 | HGM | 59.591 | 60.196 | 3.33 | 3.36 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH1-1-ETD-2 | 5.498 | 0.4993 | 0.1218 | 0.0102 | 3691.36 | BGM | 60.705 | 61.615 | 3.34 | 3.39 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH1-1-ETD-3 | 5.500 | 0.4988 | 0.1225 | 0.0102 | 3615.62 | BGM | 59.170 | 60.411 | 3.26 | 3.33 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH2-1-ETD-1 | 5.500 | 0.4981 | 0.1225 | 0.0102 | 3595.56 | BGM | 58.957 | 60.161 | 3.30 | 3.36 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH2-1-ETD-2 | 5.502 | 0.4982 | 0.1218 | 0.0101 | 3719.79 | BGM | 61.328 | 62.223 | 3.30 | 3.35 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH2-1-ETD-3 | 5.501 | 0.4980 | 0.1217 | 0.0101 | 3708.93 | BGM | 61.209 | 62.068 | 3.33 | 3.37 | |
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| | | | | | | | | | | | |
| Minimum | 5.4970 | 0.4980 | 0.1194 | 0.0100 | 3269.22 | | 54.166 | 54.317 | 3.101 | 3.262 | |
| Maximum | 5.5025 | 0.5016 | 0.1279 | 0.0107 | 4414.95 | | 68.946 | 73.399 | 3.379 | 3.433 | |
| Average | 5.4998 | 0.4999 | 0.1230 | 0.0103 | 3759.28 | | 61.095 | 62.659 | 3.277 | 3.358 | |
| Standard Deviation | 0.0017 | 0.0014 | 0.0029 | 0.0002 | 271.38 | | 3.462 | 4.432 | 0.082 | 0.045 | |
| Coefficient of Variation (%) | 0.03 | 0.28 | 2.33 | 2.33 | 7.22 | | 5.67 | 7.07 | 2.50 | 1.34 | |
| No. Specimens | 18 | 18 | 18 | 18 | 18 | | 18 | 18 | 18 | 18 | |

**Notes:**

NT=Not Tested

NR=No Result

GE=Gage Error

FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | FC | MH | ETW | | | | | | |

**Test Group: AITR1392-8HG-FC-MH-ETW**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01 #Plies: 12

Test Type: Fill Compression Condition: ETW

Test Method: MP1114 (ASTMD6641) Modulus/Poisson's Range: Chord 0.1% to 0.3%

# Retest Data

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | | Modulus, Msi | | Poisson's Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized | Measured | Normalized | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH1-1-ETW-1 | 5.502 | 0.5010 | 0.1268 | 0.0106 | 2795.74 | HAB | 44.006 | 46.500 | 3.101 | 3.28 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH1-1-ETW-2 | 5.502 | 0.5012 | 0.1272 | 0.0106 | 2751.88 | HAT | 43.180 | 45.753 | 3.702 | 3.92 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH1-1-ETW-3 | 5.503 | 0.5014 | 0.1270 | 0.0106 | 2894.49 | HAT | 45.448 | 48.105 | NR | NR | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH1-1-ETW-4 | 5.502 | 0.5013 | 0.1272 | 0.0106 | 3031.78 | BGM | 47.535 | 50.400 | 3.28 | 3.48 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH2-1-ETW-1 | 5.502 | 0.5013 | 0.1260 | 0.0105 | 3043.49 | HAT | 48.200 | 50.597 | 3.57 | 3.75 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH2-1-ETW-2 | 5.502 | 0.5010 | 0.1264 | 0.0105 | 3143.31 | HAB | 49.640 | 52.280 | 3.41 | 3.59 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH2-1-ETW-3 | 5.502 | 0.5013 | 0.1263 | 0.0105 | 2850.33 | BGM | 45.007 | 47.382 | 3.35 | 3.53 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH2-1-ETW-4 | 5.501 | 0.5012 | 0.1266 | 0.0105 | 3153.74 | M(H,B)AT | 49.716 | 52.436 | 3.47 | 3.66 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH1-1-ETW-1 | 5.497 | 0.5017 | 0.1211 | 0.0101 | 2585.14 | HAB | 42.564 | 42.937 | 3.39 | 3.42 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH1-1-ETW-2 | 5.497 | 0.5016 | 0.1207 | 0.0101 | 2630.08 | BGM | 43.443 | 43.696 | 3.36 | 3.38 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH1-1-ETW-3 | 5.498 | 0.5014 | 0.1211 | 0.0101 | 2525.51 | HAB | 41.587 | 41.974 | 3.38 | 3.41 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH1-1-ETW-4 | 5.498 | 0.5015 | 0.1214 | 0.0101 | 2881.72 | M(B,H)GM | 47.323 | 47.882 | 3.47 | 3.51 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH2-1-ETW-1 | 5.501 | 0.4986 | 0.1192 | 0.0099 | 2675.11 | HAB | 45.028 | 44.715 | NR | NR | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH2-1-ETW-2 | 5.500 | 0.4990 | 0.1197 | 0.0100 | 2704.48 | BGM | 45.300 | 45.168 | 3.49 | 3.48 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH2-1-ETW-3 | 5.500 | 0.4986 | 0.1202 | 0.0100 | 2782.66 | HGM | 46.440 | 46.511 | 3.49 | 3.49 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH2-1-ETW-4 | 5.500 | 0.4988 | 0.1202 | 0.0100 | 2608.46 | M(B,H)GM | 43.509 | 43.576 | 3.35 | 3.36 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH1-1-ETW-1 | 5.501 | 0.4990 | 0.1220 | 0.0102 | 2695.82 | HAT | 44.287 | 45.019 | NR | NR | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH1-1-ETW-2 | 5.500 | 0.4991 | 0.1224 | 0.0102 | 2474.13 | HGM | 40.497 | 41.313 | NR | NR | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH1-1-ETW-3 | 5.500 | 0.4990 | 0.1228 | 0.0102 | 2506.87 | BAT | 40.909 | 41.863 | 3.14 | 3.22 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH1-1-ETW-4 | 5.500 | 0.4991 | 0.1224 | 0.0102 | 2608.06 | BGM | 42.704 | 43.546 | 3.39 | 3.45 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH1-1-ETW2-4* | 5.498 | 0.4990 | 0.1225 | 0.0102 | 2701.58 | HGM | 44.199 | 45.120 | 3.14 | 3.20 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH2-1-ETW-1 | 5.501 | 0.4980 | 0.1221 | 0.0102 | 2740.74 | BGM, HGM | 45.089 | 45.866 | NR | NR | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH2-1-ETW-2 | 5.501 | 0.4978 | 0.1223 | 0.0102 | 2640.00 | HGM | 43.375 | 44.195 | 3.18 | 3.24 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH2-1-ETW-3 | 5.500 | 0.4981 | 0.1211 | 0.0101 | 2479.87 | BGM | 41.118 | 41.489 | NR | NR | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH2-1-ETW-4 | 5.503 | 0.4984 | 0.1224 | 0.0102 | 2779.80 | M(B,H)AT | 45.564 | 46.476 | 3.38 | 3.45 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH2-1-ETW2-4* | 5.500 | 0.4984 | 0.1224 | 0.0102 | 2659.80 | BGM | 43.621 | 44.475 | 3.28 | 3.34 | |
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| Minimum | 5.4965 | 0.4978 | 0.1192 | 0.0099 | 2474.13 | | 40.497 | 41.313 | 3.101 | 3.201 | |
| Maximum | 5.5030 | 0.5017 | 0.1272 | 0.0106 | 3153.74 | | 49.716 | 52.436 | 3.702 | 3.923 | |
| Average | 5.5002 | 0.4999 | 0.1230 | 0.0103 | 2744.02 | | 44.588 | 45.741 | 3.366 | 3.458 | |
| Standard Deviation | 0.0018 | 0.0014 | 0.0026 | 0.0002 | 190.60 | | 2.479 | 3.113 | 0.151 | 0.179 | |
| Coefficient of Variation (%) | 0.03 | 0.28 | 2.15 | 2.15 | 6.95 | | 5.56 | 6.80 | 4.49 | 5.17 | |
| No. Specimens | 26 | 26 | 26 | 26 | 26 | | 26 | 26 | 20 | 20 | |

**Notes:**

NT=Not Tested

NR=No Result

GE=Gage Error

FM=Failure Mode Unacceptable

*Specimens were taken from ETW2 set, tested at ETW.

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | FC | MH | ETW2 | | | | | | |

**Test Group: AITR1392-8HG-FC-MH-ETW2**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01 #Plies: 12

Test Type: Fill Compression Condition: ETW2

Test Method: MP1114 (ASTMD6641) Modulus/Poisson's Range: Chord 0.1% to 0.3%

# Retest Data

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | | Modulus, Msi | | Poisson's Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized | Measured | Normalized | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH1-1-ETW2-1 | 5.502 | 0.5014 | 0.1273 | 0.0106 | 2510.44 | HGM | 39.349 | 41.727 | NR | NR | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH1-1-ETW2-2 | 5.502 | 0.5014 | 0.1267 | 0.0106 | 2556.70 | BGM | 40.246 | 42.493 | 2.96 | 3.12 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH1-1-ETW2-3 | 5.502 | 0.5014 | 0.1272 | 0.0106 | 2495.59 | HGM | 39.143 | 41.476 | 2.89 | 3.07 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH1-1-ETW2-4 | 5.502 | 0.5014 | 0.1269 | 0.0106 | 2570.44 | HGM | 40.417 | 42.724 | 2.99 | 3.16 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH2-1-ETW2-1 | 5.502 | 0.5012 | 0.1271 | 0.0106 | 2626.41 | HGM | 41.233 | 43.673 | 3.11 | 3.30 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH2-1-ETW2-2 | 5.502 | 0.5011 | 0.1273 | 0.0106 | 2547.63 | HGM | 39.930 | 42.370 | 3.10 | 3.29 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-A-MH2-1-ETW2-3 | 5.501 | 0.5012 | 0.1272 | 0.0106 | 2826.96 | HAT | 44.359 | 47.002 | 2.92 | 3.09 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH1-1-ETW2-1 | 5.496 | 0.5018 | 0.1217 | 0.0101 | 2359.39 | HGM | 38.639 | 39.181 | 3.08 | 3.12 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH1-1-ETW2-2 | 5.498 | 0.5016 | 0.1215 | 0.0101 | 2411.11 | BGM | 39.554 | 40.054 | 3.04 | 3.08 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH1-1-ETW2-3 | 5.497 | 0.5017 | 0.1211 | 0.0101 | 2445.92 | HGM | 40.269 | 40.627 | 3.03 | 3.06 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH1-1-ETW2-4 | 5.498 | 0.5012 | 0.1217 | 0.0101 | 2404.46 | HAT | 39.429 | 39.982 | 3.27 | 3.31 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH2-1-ETW2-1 | 5.500 | 0.4984 | 0.1201 | 0.0100 | 2396.72 | HGM | 40.037 | 40.076 | 3.13 | 3.13 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-B-MH2-1-ETW2-2 | 5.500 | 0.4984 | 0.1206 | 0.0101 | 2475.77 | HAT | 41.188 | 41.399 | 3.13 | 3.15 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH1-1-ETW2-1 | 5.498 | 0.4990 | 0.1227 | 0.0102 | 2299.51 | BGM, HGM | 37.558 | 38.403 | 3.01 | 3.08 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH1-1-ETW2-2 | 5.505 | 0.4991 | 0.1220 | 0.0102 | 2300.21 | HGM | 37.791 | 38.405 | 3.00 | 3.04 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH1-1-ETW2-3 | 5.499 | 0.4989 | 0.1228 | 0.0102 | 2251.05 | HGM | 36.757 | 37.599 | 2.99 | 3.06 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH2-1-ETW2-1 | 5.501 | 0.4983 | 0.1215 | 0.0101 | 2367.90 | HGM | 39.125 | 39.604 | 3.06 | 3.10 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH2-1-ETW2-2 | 5.501 | 0.4982 | 0.1226 | 0.0102 | 2393.95 | HGM | 39.209 | 40.042 | 2.93 | 2.99 | |
| NTP AITR1392-CYT-8HG-NIAR-FC-C-MH2-1-ETW2-3 | 5.501 | 0.4983 | 0.1217 | 0.0101 | 2210.41 | BGM | 36.439 | 36.966 | 3.02 | 3.07 | |
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| Minimum | 5.4960 | 0.4982 | 0.1201 | 0.0100 | 2210.41 | | 36.439 | 36.966 | 2.894 | 2.989 | |
| Maximum | 5.5045 | 0.5018 | 0.1273 | 0.0106 | 2826.96 | | 44.359 | 47.002 | 3.266 | 3.311 | |
| Average | 5.5003 | 0.5002 | 0.1237 | 0.0103 | 2444.77 | | 39.509 | 40.726 | 3.037 | 3.124 | |
| Standard Deviation | 0.0021 | 0.0015 | 0.0028 | 0.0002 | 145.51 | | 1.774 | 2.359 | 0.091 | 0.090 | |
| Coefficient of Variation (%) | 0.04 | 0.29 | 2.23 | 2.23 | 5.95 | | 4.49 | 5.79 | 3.01 | 2.89 | |
| No. Specimens | 19 | 19 | 19 | 19 | 19 | | 19 | 19 | 18 | 18 | |

**Notes:**

NT=Not Tested

NR=No Result

GE=Gage Error

FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | IPS | MH | CTD | | | | |

**Test Group: AITR1392-8HG-IPS-MH-CTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01

Test Type: ±45° In Plane Shear Condition: CTD #Plies: 8

Test Method: MP1115 (ASTMD3518) Modulus/Poisson's Range: Chord 0.2% to 0.6%

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Failure Mode | Shear Strength, ksi | | | Modulus, Msi |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 0.2% Offset | @ 5% Strain | Maximum | Measured |
| AITR1392-8HG-IPS-A-MH1-CTD-1 | 10.001 | 1.0070 | 0.0780 | 0.0098 | | 6.303 | GE | NT | 0.689 |
| AITR1392-8HG-IPS-A-MH1-CTD-2 | 10.003 | 1.0060 | 0.0770 | 0.0096 | | 6.509 | GE | NT | 0.686 |
| AITR1392-8HG-IPS-A-MH1-CTD-3 | 10.004 | 1.0060 | 0.0770 | 0.0096 | | 6.891 | GE | NT | 0.665 |
| AITR1392-8HG-IPS-A-MH1-CTD-4 | 10.001 | 1.0070 | 0.0770 | 0.0096 | | 7.000 | GE | NT | 0.647 |
| AITR1392-8HG-IPS-A-MH2-CTD-1 | 10.009 | 1.0100 | 0.0797 | 0.0100 | | 7.106 | GE | NT | 0.613 |
| AITR1392-8HG-IPS-A-MH2-CTD-2 | 9.991 | 1.0100 | 0.0810 | 0.0101 | | 6.156 | GE | NT | 0.660 |
| AITR1392-8HG-IPS-A-MH2-CTD-3 | 9.985 | 1.0100 | 0.0791 | 0.0099 | | GE | GE | NT | GE |
| AITR1392-8HG-IPS-A-MH2-CTD-4 | 9.991 | 1.0100 | 0.0799 | 0.0100 | | 7.647 | 13.981 | NT | 0.660 |
| AITR1392-8HG-IPS-B-MH1-CTD-1 | 10.005 | 1.0070 | 0.0814 | 0.0102 | | 5.345 | GE | NT | 0.587 |
| AITR1392-8HG-IPS-B-MH1-CTD-2 | 10.006 | 1.0080 | 0.0809 | 0.0101 | | 7.108 | GE | NT | 0.605 |
| AITR1392-8HG-IPS-B-MH1-CTD-3 | 10.007 | 1.0070 | 0.0798 | 0.0100 | | 8.008 | 13.040 | NT | 0.618 |
| AITR1392-8HG-IPS-B-MH1-CTD-4 | 10.009 | 0.9960 | 0.0796 | 0.0100 | | 8.012 | GE | NT | 0.648 |
| AITR1392-8HG-IPS-B-MH2-CTD-1 | 10.005 | 1.0080 | 0.0819 | 0.0102 | | 7.366 | 12.961 | NT | 0.657 |
| AITR1392-8HG-IPS-B-MH2-CTD-2 | 10.007 | 1.0090 | 0.0799 | 0.0100 | | 6.367 | GE | NT | 0.722 |
| AITR1392-8HG-IPS-B-MH2-CTD-3 | 10.007 | 1.0080 | 0.0809 | 0.0101 | | 8.172 | 12.130 | NT | 0.641 |
| AITR1392-8HG-IPS-B-MH2-CTD-4 | 10.004 | 1.0090 | 0.0810 | 0.0101 | | 6.794 | GE | NT | 0.560 |
| AITR1392-8HG-IPS-C-MH1-CTD-1 | 10.006 | 1.0020 | 0.0780 | 0.0098 | | 6.980 | 12.990 | NT | 0.648 |
| AITR1392-8HG-IPS-C-MH1-CTD-2 | 10.004 | 1.0070 | 0.0800 | 0.0100 | | 6.608 | 12.790 | NT | 0.648 |
| AITR1392-8HG-IPS-C-MH1-CTD-3 | 10.003 | 1.0080 | 0.0790 | 0.0099 | | 6.685 | GE | NT | 0.651 |
| AITR1392-8HG-IPS-C-MH1-CTD-4 | 10.004 | 1.0060 | 0.0790 | 0.0099 | | 7.389 | 12.980 | NT | 0.582 |
| AITR1392-8HG-IPS-C-MH2-CTD-1 | 10.005 | 1.0040 | 0.0790 | 0.0099 | | 6.939 | 13.180 | NT | 0.655 |
| AITR1392-8HG-IPS-C-MH2-CTD-2 | 10.003 | 1.0080 | 0.0800 | 0.0100 | | 7.049 | 13.050 | NT | 0.611 |
| AITR1392-8HG-IPS-C-MH2-CTD-3 | 10.005 | 1.0070 | 0.0760 | 0.0095 | | 6.520 | 13.100 | NT | 0.698 |
| AITR1392-8HG-IPS-C-MH2-CTD-4 | 10.007 | 1.0070 | 0.0790 | 0.0099 | | 6.421 | 12.830 | NT | 0.664 |
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| Minimum | 9.9850 | 0.9960 | 0.0760 | 0.0095 | | 5.345 | 12.130 | | 0.560 |
| Maximum | 10.0090 | 1.0100 | 0.0819 | 0.0102 | | 8.172 | 13.981 | | 0.722 |
| Average | 10.0030 | 1.0070 | 0.0793 | 0.0099 | | 6.929 | 13.003 | | 0.644 |
| Standard Deviation | 0.0059 | 0.0030 | 0.0015 | 0.0002 | | 0.657 | 0.429 | | 0.039 |
| Coefficient of Variation (%) | 0.06 | 0.30 | 1.95 | 1.95 | | 9.47 | 3.30 | | 6.01 |
| No. Specimens | 24 | 24 | 24 | 24 | | 23 | 11 | | 23 |

**Notes:**
NT=Not Tested
NR=No Result
NA=Not Applicable
FM=Failure Mode Unacceptable
GE=Gage Error

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | IPS | MH | RTD | | | | |

**Test Group: AITR1392-8HG-IPS-MH-RTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01

Test Type: ±45° In Plane Shear Condition: RTD #Plies: 8

Test Method: MP1115 (ASTMD3518) Modulus/Poisson's Range: Chord 0.2% to 0.6%

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Failure Mode | Shear Strength, ksi | | | Modulus, Msi |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 0.2% Offset | @ 5% Strain | Maximum | Measured |
| AITR1392-8HG-IPS-A-MH1-RTD-1 | 10.000 | 1.0080 | 0.0770 | 0.0096 | | 5.368 | 9.559 | NT | 0.562 |
| AITR1392-8HG-IPS-A-MH1-RTD-2 | 10.000 | 1.0050 | 0.0790 | 0.0099 | | 5.632 | 9.499 | NT | 0.512 |
| AITR1392-8HG-IPS-A-MH1-RTD-3 | 10.000 | 1.0080 | 0.0790 | 0.0099 | | 5.694 | 9.765 | NT | 0.518 |
| AITR1392-8HG-IPS-A-MH1-RTD-4 | | | | | | NT | NA | NT | NT |
| AITR1392-8HG-IPS-A-MH2-RTD-1 | 10.000 | 1.0080 | 0.0780 | 0.0098 | | 5.166 | GE | NT | 0.562 |
| AITR1392-8HG-IPS-A-MH2-RTD-2 | 10.000 | 1.0080 | 0.0780 | 0.0098 | | 5.193 | GE | NT | 0.489 |
| AITR1392-8HG-IPS-A-MH2-RTD-3 | 10.000 | 1.0090 | 0.0770 | 0.0096 | | 5.291 | 9.737 | NT | 0.525 |
| AITR1392-8HG-IPS-A-MH2-RTD-4 | | | | | | NT | NA | NT | NT |
| AITR1392-8HG-IPS-B-MH1-RTD-1 | 10.000 | 1.0090 | 0.0800 | 0.0100 | | 6.802 | NT | NT | 0.738 |
| AITR1392-8HG-IPS-B-MH1-RTD-2 | 10.000 | 0.9950 | 0.0780 | 0.0098 | | 5.815 | 9.969 | NT | 0.551 |
| AITR1392-8HG-IPS-B-MH1-RTD-3 | 10.000 | 1.0080 | 0.0790 | 0.0099 | | 5.127 | 9.403 | NT | 0.506 |
| AITR1392-8HG-IPS-B-MH1-RTD-4 | | | | | | NT | NA | NT | NT |
| AITR1392-8HG-IPS-B-MH2-RTD-1 | 10.000 | 1.0100 | 0.0820 | 0.0103 | | 4.770 | 10.834 | NT | 0.504 |
| AITR1392-8HG-IPS-B-MH2-RTD-2 | 10.000 | 1.0100 | 0.0807 | 0.0101 | | 4.822 | 9.230 | NT | 0.532 |
| AITR1392-8HG-IPS-B-MH2-RTD-3 | 10.000 | 1.0080 | 0.0806 | 0.0101 | | 6.042 | 10.480 | NT | 0.568 |
| AITR1392-8HG-IPS-B-MH2-RTD-4 | | | | | | NT | NA | NT | NT |
| AITR1392-8HG-IPS-C-MH1-RTD-1 | 10.000 | 1.0060 | 0.0790 | 0.0099 | | GE | GE | NT | GE |
| AITR1392-8HG-IPS-C-MH1-RTD-2 | 10.000 | 1.0070 | 0.0790 | 0.0099 | | 5.272 | 9.739 | NT | 0.535 |
| AITR1392-8HG-IPS-C-MH1-RTD-3 | 10.000 | 1.0060 | 0.0790 | 0.0099 | | 5.399 | 10.379 | NT | 0.506 |
| AITR1392-8HG-IPS-C-MH1-RTD-4 | | | | | | NT | NA | NT | NT |
| AITR1392-8HG-IPS-C-MH2-RTD-1 | 10.000 | 1.0080 | 0.0780 | 0.0098 | | 5.219 | 9.497 | NT | 0.526 |
| AITR1392-8HG-IPS-C-MH2-RTD-2 | 10.000 | 1.0080 | 0.0790 | 0.0099 | | 5.197 | GE | NT | 0.527 |
| AITR1392-8HG-IPS-C-MH2-RTD-3 | 10.000 | 1.0060 | 0.0790 | 0.0099 | | 4.796 | 9.357 | NT | 0.533 |
| AITR1392-8HG-IPS-C-MH2-RTD-4 | | | | | | NT | NA | NT | NT |
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| Minimum | 10.0000 | 0.9950 | 0.0770 | 0.0096 | | 4.770 | 9.230 | | 0.489 |
| Maximum | 10.0000 | 1.0100 | 0.0820 | 0.0103 | | 6.802 | 10.834 | | 0.738 |
| Average | 10.0000 | 1.0071 | 0.0790 | 0.0099 | | 5.389 | 9.804 | | 0.541 |
| Standard Deviation | 0.0000 | 0.0033 | 0.0013 | 0.0002 | | 0.504 | 0.485 | | 0.055 |
| Coefficient of Variation (%) | 0.00 | 0.33 | 1.61 | 1.61 | | 9.35 | 4.95 | | 10.25 |
| No. Specimens | 18 | 18 | 18 | 18 | | 17 | 13 | | 17 |

**Notes:**
NT=Not Tested
NR=No Result
NA=Not Applicable
FM=Failure Mode Unacceptable
GE=Gage Error

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | IPS | MH | ETW | | | | |

**Test Group: AITR1392-8HG-IPS-MH-ETW**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01

Test Type: ±45° In Plane Shear Condition: ETW #Plies: 8

Test Method: MP1115 (ASTMD3518) Modulus/Poisson's Range: Chord 0.2% to 0.6%

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Failure Mode | Shear Strength, ksi | | | Modulus, Msi |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 0.2% Offset | @ 5% Strain | Maximum | Measured |
| AITR1392-8HG-IPS-A-MH1-ETW-1 | 10.012 | 1.0070 | 0.0780 | 0.0098 | | 2.260 | 4.939 | NT | 0.357 |
| AITR1392-8HG-IPS-A-MH1-ETW-2 | 10.014 | 1.0070 | 0.0800 | 0.0100 | | 2.441 | 4.892 | NT | 0.346 |
| AITR1392-8HG-IPS-A-MH1-ETW-3 | 10.009 | 1.0070 | 0.0780 | 0.0098 | | 2.645 | 5.038 | NT | 0.336 |
| AITR1392-8HG-IPS-A-MH1-ETW-4 | 10.015 | 1.0070 | 0.0780 | 0.0098 | | NT | NA | NT | NT |
| AITR1392-8HG-IPS-A-MH2-ETW-1 | 10.038 | 1.0100 | 0.0790 | 0.0099 | | 3.065 | 5.098 | NT | 0.301 |
| AITR1392-8HG-IPS-A-MH2-ETW-2 | 10.037 | 1.0100 | 0.0790 | 0.0099 | | 2.987 | 5.255 | NT | 0.362 |
| AITR1392-8HG-IPS-A-MH2-ETW-3 | 10.033 | 1.0100 | 0.0790 | 0.0099 | | 3.335 | 5.254 | NT | 0.297 |
| AITR1392-8HG-IPS-A-MH2-ETW-4 | 10.032 | 1.0100 | 0.0780 | 0.0098 | | NT | NA | NT | NT |
| AITR1392-8HG-IPS-B-MH1-ETW-1 | 10.014 | 1.0070 | 0.0800 | 0.0100 | | 3.002 | 5.138 | NT | 0.349 |
| AITR1392-8HG-IPS-B-MH1-ETW-2 | 10.017 | 1.0080 | 0.0790 | 0.0099 | | 3.194 | 5.261 | NT | 0.347 |
| AITR1392-8HG-IPS-B-MH1-ETW-3 | 10.017 | 1.0070 | 0.0790 | 0.0099 | | 2.848 | 5.098 | NT | 0.362 |
| AITR1392-8HG-IPS-B-MH1-ETW-4 | 10.015 | 1.0000 | 0.0800 | 0.0100 | | NT | NA | NT | NT |
| AITR1392-8HG-IPS-B-MH2-ETW-1 | 10.014 | 1.0080 | 0.0800 | 0.0100 | | 2.749 | 5.170 | NT | 0.341 |
| AITR1392-8HG-IPS-B-MH2-ETW-2 | 10.014 | 1.0080 | 0.0810 | 0.0101 | | 3.055 | 5.520 | NT | 0.336 |
| AITR1392-8HG-IPS-B-MH2-ETW-3 | 10.014 | 1.0070 | 0.0780 | 0.0098 | | 3.264 | 5.835 | NT | 0.339 |
| AITR1392-8HG-IPS-B-MH2-ETW-4 | 10.014 | 1.0080 | 0.0800 | 0.0100 | | NT | NA | NT | NT |
| AITR1392-8HG-IPS-C-MH1-ETW-1 | 10.015 | 1.0080 | 0.0790 | 0.0099 | | 2.810 | 5.200 | NT | 0.329 |
| AITR1392-8HG-IPS-C-MH1-ETW-2 | 10.015 | 1.0080 | 0.0790 | 0.0099 | | 3.228 | 5.650 | NT | 0.332 |
| AITR1392-8HG-IPS-C-MH1-ETW-3 | 10.017 | 1.0080 | 0.0790 | 0.0099 | | 3.289 | 5.617 | NT | 0.317 |
| AITR1392-8HG-IPS-C-MH1-ETW-4 | 10.017 | 1.0080 | 0.0790 | 0.0099 | | NT | NA | NT | NT |
| AITR1392-8HG-IPS-C-MH2-ETW-1 | 10.012 | 1.0070 | 0.0800 | 0.0100 | | 2.579 | 5.352 | NT | 0.414 |
| AITR1392-8HG-IPS-C-MH2-ETW-2 | 10.013 | 1.0080 | 0.0780 | 0.0098 | | 3.279 | 5.687 | NT | 0.357 |
| AITR1392-8HG-IPS-C-MH2-ETW-3 | 10.018 | 1.0090 | 0.0790 | 0.0099 | | 2.946 | 5.401 | NT | 0.334 |
| AITR1392-8HG-IPS-C-MH2-ETW-4 | 10.016 | 1.0090 | 0.0790 | 0.0099 | | NT | NA | NT | NT |
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| Minimum | 10.0090 | 1.0000 | 0.0780 | 0.0098 | | 2.260 | 4.892 | | 0.297 |
| Maximum | 10.0380 | 1.0100 | 0.0810 | 0.0101 | | 3.335 | 5.835 | | 0.414 |
| Average | 10.0180 | 1.0078 | 0.0791 | 0.0099 | | 2.943 | 5.300 | | 0.342 |
| Standard Deviation | 0.0081 | 0.0020 | 0.0008 | 0.0001 | | 0.313 | 0.269 | | 0.026 |
| Coefficient of Variation (%) | 0.08 | 0.19 | 1.05 | 1.05 | | 10.65 | 5.07 | | 7.49 |
| No. Specimens | 24 | 24 | 24 | 24 | | 18 | 18 | | 18 |

**Notes:**
NT=Not Tested
NR=No Result
NA=Not Applicable
FM=Failure Mode Unacceptable
GE=Gage Error

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | IPS | MH | ETW2 | | | | |

**Test Group: AITR1392-8HG-IPS-MH-ETW2**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01

Test Type: ±45° In Plane Shear Condition: ETW2 #Plies: 8

Test Method: MP1115 (ASTMD3518) Modulus/Poisson's Range: Chord 0.2% to 0.6%

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Failure Mode | Shear Strength, ksi | | | Modulus, Msi |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 0.2% Offset | @ 5% Strain | Ultimate | Measured |
| AITR1392-8HG-IPS-A-MH1-ETW2-1 | 10.014 | 1.0080 | 0.0780 | 0.0098 | | NT | NA | NT | NT |
| AITR1392-8HG-IPS-A-MH1-ETW2-2 | 10.016 | 1.0080 | 0.0740 | 0.0093 | | 2.786 | GE | NT | 0.295 |
| AITR1392-8HG-IPS-A-MH1-ETW2-3 | 10.014 | 1.0090 | 0.0750 | 0.0094 | | 3.048 | 4.808 | NT | 0.313 |
| AITR1392-8HG-IPS-A-MH1-ETW2-4 | 10.015 | 1.0080 | 0.0770 | 0.0096 | | 2.758 | 5.006 | NT | 0.304 |
| AITR1392-8HG-IPS-A-MH2-ETW2-1 | 10.032 | 1.0100 | 0.0790 | 0.0099 | | 2.438 | 4.270 | NT | 0.329 |
| AITR1392-8HG-IPS-A-MH2-ETW2-2 | 10.033 | 1.0100 | 0.0790 | 0.0099 | | 2.498 | 4.387 | NT | 0.338 |
| AITR1392-8HG-IPS-A-MH2-ETW2-3 | 10.040 | 1.0100 | 0.0790 | 0.0099 | | NT | NA | NT | NT |
| AITR1392-8HG-IPS-A-MH2-ETW2-4 | 10.040 | 1.0100 | 0.0800 | 0.0100 | | 2.364 | 4.388 | NT | 0.283 |
| AITR1392-8HG-IPS-B-MH1-ETW2-1 | 10.018 | 1.0000 | 0.0810 | 0.0101 | | 2.548 | 4.546 | NT | 0.351 |
| AITR1392-8HG-IPS-B-MH1-ETW2-2 | 10.013 | 1.0080 | 0.0790 | 0.0099 | | 2.380 | 5.354 | NT | 0.310 |
| AITR1392-8HG-IPS-B-MH1-ETW2-3 | 10.011 | 1.0080 | 0.0800 | 0.0100 | | 2.689 | 4.236 | NT | 0.314 |
| AITR1392-8HG-IPS-B-MH1-ETW2-4 | 10.012 | 1.0090 | 0.0790 | 0.0099 | | NT | NA | NT | NT |
| AITR1392-8HG-IPS-B-MH2-ETW2-1 | 10.014 | 1.0080 | 0.0800 | 0.0100 | | 2.887 | 4.724 | NT | 0.328 |
| AITR1392-8HG-IPS-B-MH2-ETW2-2 | 10.013 | 1.0020 | 0.0810 | 0.0101 | | GE | N/A | NT | GE |
| AITR1392-8HG-IPS-B-MH2-ETW2-3 | 10.017 | 1.0070 | 0.0800 | 0.0100 | | 2.700 | 4.555 | NT | 0.354 |
| AITR1392-8HG-IPS-B-MH2-ETW2-4 | 10.010 | 1.0090 | 0.0800 | 0.0100 | | NT | NA | NT | NT |
| AITR1392-8HG-IPS-C-MH1-ETW2-1 | 10.013 | 1.0060 | 0.0790 | 0.0099 | | 2.448 | 5.533 | NT | 0.375 |
| AITR1392-8HG-IPS-C-MH1-ETW2-2 | 10.013 | 1.0070 | 0.0770 | 0.0096 | | 2.769 | 4.568 | NT | 0.341 |
| AITR1392-8HG-IPS-C-MH1-ETW2-3 | 10.014 | 1.0060 | 0.0790 | 0.0099 | | 2.518 | N/A | NT | 0.327 |
| AITR1392-8HG-IPS-C-MH1-ETW2-4 | 10.015 | 1.0080 | 0.0800 | 0.0100 | | NT | NA | NT | NT |
| AITR1392-8HG-IPS-C-MH2-ETW2-1 | 10.016 | 1.0080 | 0.0790 | 0.0099 | | 2.827 | GE | NT | 0.324 |
| AITR1392-8HG-IPS-C-MH2-ETW2-2 | 10.017 | 1.0070 | 0.0790 | 0.0099 | | 2.944 | GE | NT | 0.374 |
| AITR1392-8HG-IPS-C-MH2-ETW2-3 | 10.018 | 1.0080 | 0.0790 | 0.0099 | | 2.836 | GE | NT | 0.355 |
| AITR1392-8HG-IPS-C-MH2-ETW2-4 | 10.015 | 1.0060 | 0.0790 | 0.0099 | | NT | NA | NT | NT |
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| Minimum | 10.0100 | 1.0000 | 0.0740 | 0.0093 | | 2.364 | 4.236 | | 0.283 |
| Maximum | 10.0400 | 1.0100 | 0.0810 | 0.0101 | | 3.048 | 5.533 | | 0.375 |
| Average | 10.0180 | 1.0075 | 0.0788 | 0.0099 | | 2.673 | 4.698 | | 0.330 |
| Standard Deviation | 0.0087 | 0.0024 | 0.0017 | 0.0002 | | 0.209 | 0.414 | | 0.026 |
| Coefficient of Variation (%) | 0.09 | 0.23 | 2.10 | 2.10 | | 7.82 | 8.81 | | 7.89 |
| No. Specimens | 24 | 24 | 24 | 24 | | 17 | 12 | | 17 |

**Notes:**
NT=Not Tested
NR=No Result
NA=Not Applicable
FM=Failure Mode Unacceptable
GE=Gage Error

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | |
|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | SBS | MH | CTD | | | |

**Test Group: AITR1392-8HG-SBS-MH-CTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01
Test Type: Short Beam Shear Condition: CTD #Plies: 12
Test Method: MP1116 (ASTMD2344) Span (4t): 0.48

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized |
| AITR1392-8HG-SBS-A-MH1-CTD-1 | 1.500 | 0.2598 | 0.1176 | 0.0098 | 494.00 | FCC/ILS | 12.127 | 11.884 |
| AITR1392-8HG-SBS-A-MH1-CTD-2 | 1.502 | 0.2540 | 0.1177 | 0.0098 | 466.00 | ILS | 11.691 | 11.467 |
| AITR1392-8HG-SBS-A-MH1-CTD-3 | 1.502 | 0.2539 | 0.1165 | 0.0097 | 479.00 | ILS | 12.145 | 11.791 |
| AITR1392-8HG-SBS-A-MH1-CTD-4 | 1.501 | 0.2540 | 0.1174 | 0.0098 | 463.00 | ILS/FCC | 11.645 | 11.393 |
| AITR1392-8HG-SBS-A-MH2-CTD-1 | 1.501 | 0.2543 | 0.1194 | 0.0100 | 518.00 | ILS | 12.795 | 12.731 |
| AITR1392-8HG-SBS-A-MH2-CTD-2 | 1.499 | 0.2535 | 0.1155 | 0.0096 | 501.00 | ILS | 12.833 | 12.352 |
| AITR1392-8HG-SBS-A-MH2-CTD-3 | 1.500 | 0.2561 | 0.1189 | 0.0099 | 509.00 | ILS | 12.537 | 12.422 |
| AITR1392-8HG-SBS-A-MH2-CTD-4 | 1.501 | 0.2543 | 0.1190 | 0.0099 | NT | | | |
| AITR1392-8HG-SBS-B-MH1-CTD-1 | 1.499 | 0.2547 | 0.1208 | 0.0101 | 520.00 | ILS/FCC | 12.676 | 12.760 |
| AITR1392-8HG-SBS-B-MH1-CTD-2 | 1.501 | 0.2542 | 0.1219 | 0.0102 | 522.00 | ILS | 12.634 | 12.834 |
| AITR1392-8HG-SBS-B-MH1-CTD-3 | 1.500 | 0.2546 | 0.1220 | 0.0102 | 525.00 | ILS | 12.677 | 12.888 |
| AITR1392-8HG-SBS-B-MH1-CTD-4 | 1.502 | 0.2540 | 0.1177 | 0.0098 | NT | | | |
| AITR1392-8HG-SBS-B-MH2-CTD-1 | 1.498 | 0.2564 | 0.1243 | 0.0104 | 521.00 | ILS | 12.261 | 12.700 |
| AITR1392-8HG-SBS-B-MH2-CTD-2 | 1.500 | 0.2495 | 0.1205 | 0.0100 | 504.00 | ILS | 12.573 | 12.625 |
| AITR1392-8HG-SBS-B-MH2-CTD-3 | 1.500 | 0.2494 | 0.1225 | 0.0102 | 502.00 | ILS | 12.323 | 12.580 |
| AITR1392-8HG-SBS-B-MH2-CTD-4 | 1.496 | 0.2566 | 0.1224 | 0.0102 | NT | | | |
| AITR1392-8HG-SBS-C-MH1-CTD-1 | 1.500 | 0.2571 | 0.1248 | 0.0104 | NT | | | |
| AITR1392-8HG-SBS-C-MH1-CTD-2 | 1.502 | 0.2560 | 0.1237 | 0.0103 | 478.00 | ILS/FCC | 11.321 | 11.670 |
| AITR1392-8HG-SBS-C-MH1-CTD-3 | 1.502 | 0.2541 | 0.1208 | 0.0101 | 469.00 | ILS | 11.459 | 11.536 |
| AITR1392-8HG-SBS-C-MH1-CTD-4 | 1.503 | 0.2543 | 0.1214 | 0.0101 | NT | | | |
| AITR1392-8HG-SBS-C-MH2-CTD-1 | 1.493 | 0.2520 | 0.1211 | 0.0101 | 482.00 | ILS | 11.846 | 11.954 |
| AITR1392-8HG-SBS-C-MH2-CTD-2 | 1.496 | 0.2510 | 0.1207 | 0.0101 | 519.00 | ILS | 12.848 | 12.923 |
| AITR1392-8HG-SBS-C-MH2-CTD-3 | 1.500 | 0.2510 | 0.1229 | 0.0102 | 527.00 | ILS | 12.813 | 13.123 |
| AITR1392-8HG-SBS-C-MH2-CTD-4 | 1.494 | 0.2510 | 0.1169 | 0.0097 | NT | | | |
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| Minimum | 1.4930 | 0.2494 | 0.1155 | 0.0096 | 463.00 | | 11.321 | 11.393 |
| Maximum | 1.5030 | 0.2598 | 0.1248 | 0.0104 | 527.00 | | 12.848 | 13.123 |
| Average | 1.4997 | 0.2540 | 0.1203 | 0.0100 | 499.94 | | 12.289 | 12.313 |
| Standard Deviation | 0.0026 | 0.0024 | 0.0026 | 0.0002 | 22.01 | | 0.506 | 0.569 |
| Coefficient of Variation (%) | 0.17 | 0.96 | 2.16 | 2.16 | 4.40 | | 4.11 | 4.62 |
| No. Specimens | 24 | 24 | 24 | 24 | 18 | | 18 | 18 |

**Notes:**
NT=Not Tested
NR=No Result
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | |
|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | SBS | MH | RTD | | | |

**Test Group: AITR1392-8HG-SBS-MH-RTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01

Test Type: Short Beam Shear Condition: RTD #Plies: 12

Test Method: MP1116 (ASTMD2344) Span (4t): 0.48

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized |
| AITR1392-8HG-SBS-A-MH1-RTD-1 | 1.502 | 0.2542 | 0.1176 | 0.0098 | 413.00 | ILS | 10.362 | 10.154 |
| AITR1392-8HG-SBS-A-MH1-RTD-2 | 1.503 | 0.2532 | 0.1180 | 0.0098 | 422.00 | ILS | 10.593 | 10.417 |
| AITR1392-8HG-SBS-A-MH1-RTD-3 | 1.499 | 0.2544 | 0.1177 | 0.0098 | 418.00 | ILS | 10.470 | 10.269 |
| AITR1392-8HG-SBS-A-MH1-RTD-4 | | | | | NT | | | |
| AITR1392-8HG-SBS-A-MH2-RTD-1 | 1.505 | 0.2566 | 0.1136 | 0.0095 | 409.00 | ILS/FCC/FTC | 10.523 | 9.962 |
| AITR1392-8HG-SBS-A-MH2-RTD-2 | 1.508 | 0.2566 | 0.1182 | 0.0099 | 428.00 | ILS/FTC | 10.584 | 10.425 |
| AITR1392-8HG-SBS-A-MH2-RTD-3 | 1.502 | 0.2557 | 0.1183 | 0.0099 | 423.00 | ILS/FCC/FTC | 10.488 | 10.339 |
| AITR1392-8HG-SBS-A-MH2-RTD-4 | | | | | NT | | | |
| AITR1392-8HG-SBS-B-MH1-RTD-1 | 1.501 | 0.2562 | 0.1217 | 0.0101 | 433.00 | ILS/FCC/FTC | 10.415 | 10.563 |
| AITR1392-8HG-SBS-B-MH1-RTD-2 | 1.501 | 0.2554 | 0.1159 | 0.0097 | 425.00 | ILS/FTC | 10.768 | 10.400 |
| AITR1392-8HG-SBS-B-MH1-RTD-3 | 1.502 | 0.2566 | 0.1218 | 0.0102 | 430.00 | ILS/FCC/FTC | 10.319 | 10.473 |
| AITR1392-8HG-SBS-B-MH1-RTD-4 | | | | | NT | | | |
| AITR1392-8HG-SBS-B-MH2-RTD-1 | 1.502 | 0.2562 | 0.1225 | 0.0102 | 444.00 | ILS/FCC | 10.610 | 10.831 |
| AITR1392-8HG-SBS-B-MH2-RTD-2 | 1.502 | 0.2563 | 0.1222 | 0.0102 | 440.00 | ILS/FCC | 10.536 | 10.730 |
| AITR1392-8HG-SBS-B-MH2-RTD-3 | 1.507 | 0.2560 | 0.1206 | 0.0101 | 429.00 | ILS/FCC | 10.422 | 10.474 |
| AITR1392-8HG-SBS-B-MH2-RTD-4 | | | | | NT | | | |
| AITR1392-8HG-SBS-C-MH1-RTD-1 | 1.500 | 0.2566 | 0.1234 | 0.0103 | 418.00 | ILS/FCC | 9.901 | 10.181 |
| AITR1392-8HG-SBS-C-MH1-RTD-2 | 1.503 | 0.2565 | 0.1234 | 0.0103 | 417.00 | ILS/FCC | 9.881 | 10.161 |
| AITR1392-8HG-SBS-C-MH1-RTD-3 | 1.505 | 0.2560 | 0.1238 | 0.0103 | 421.00 | ILS | 9.963 | 10.278 |
| AITR1392-8HG-SBS-C-MH1-RTD-4 | | | | | NT | | | |
| AITR1392-8HG-SBS-C-MH2-RTD-1 | 1.494 | 0.2524 | 0.1237 | 0.0103 | 448.00 | ILS/FCC | 10.762 | 11.094 |
| AITR1392-8HG-SBS-C-MH2-RTD-2 | 1.505 | 0.2516 | 0.1232 | 0.0103 | 443.00 | ILS/FTC | 10.719 | 11.005 |
| AITR1392-8HG-SBS-C-MH2-RTD-3 | 1.497 | 0.2522 | 0.1197 | 0.0100 | 429.00 | FTC/ILS | 10.658 | 10.631 |
| AITR1392-8HG-SBS-C-MH2-RTD-4 | | | | | NT | | | |
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| Minimum | 1.4940 | 0.2516 | 0.1136 | 0.0095 | 409.00 | | 9.881 | 9.962 |
| Maximum | 1.5080 | 0.2566 | 0.1238 | 0.0103 | 448.00 | | 10.768 | 11.094 |
| Average | 1.5021 | 0.2552 | 0.1203 | 0.0100 | 427.22 | | 10.443 | 10.466 |
| Standard Deviation | 0.0034 | 0.0017 | 0.0030 | 0.0003 | 11.04 | | 0.275 | 0.302 |
| Coefficient of Variation (%) | 0.22 | 0.67 | 2.52 | 2.52 | 2.58 | | 2.63 | 2.88 |
| No. Specimens | 18 | 18 | 18 | 18 | 18 | | 18 | 18 |

**Notes:**
NT=Not Tested
NR=No Result
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | |
|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | SBS | MH | ETD | | | |

**Test Group: AITR1392-8HG-SBS-MH-ETD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01
Test Type: Short Beam Shear Condition: ETD #Plies: 12
Test Method: MP1116 (ASTMD2344) Span (4t): 0.48

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized |
| AITR1392-8HG-SBS-A-MH1-ETD-1 | 1.501 | 0.2586 | 0.1179 | 0.0098 | 355.00 | ILS/FCC | 8.733 | 8.580 |
| AITR1392-8HG-SBS-A-MH1-ETD-2 | 1.505 | 0.2542 | 0.1144 | 0.0095 | 323.00 | FCC/ILS | 8.330 | 7.942 |
| AITR1392-8HG-SBS-A-MH1-ETD-3 | 1.501 | 0.2543 | 0.1178 | 0.0098 | 334.00 | FCC/ILS | 8.362 | 8.209 |
| AITR1392-8HG-SBS-A-MH1-ETD-4 | | | | | NT | | | |
| AITR1392-8HG-SBS-A-MH2-ETD-1 | 1.503 | 0.2545 | 0.1161 | 0.0097 | 328.00 | ILS/FCC | 8.326 | 8.055 |
| AITR1392-8HG-SBS-A-MH2-ETD-2 | 1.502 | 0.2547 | 0.1197 | 0.0100 | 338.00 | ILS/FCC | 8.315 | 8.294 |
| AITR1392-8HG-SBS-A-MH2-ETD-3 | 1.502 | 0.2546 | 0.1163 | 0.0097 | 326.00 | ILS/FCC | 8.257 | 8.003 |
| AITR1392-8HG-SBS-A-MH2-ETD-4 | | | | | NT | | | |
| AITR1392-8HG-SBS-B-MH1-ETD-1 | 1.501 | 0.2544 | 0.1220 | 0.0102 | 341.00 | ILS/FCC | 8.240 | 8.378 |
| AITR1392-8HG-SBS-B-MH1-ETD-2 | 1.500 | 0.2567 | 0.1225 | 0.0102 | 345.00 | ILS/FCC | 8.228 | 8.400 |
| AITR1392-8HG-SBS-B-MH1-ETD-3 | 1.501 | 0.2567 | 0.1221 | 0.0102 | 345.00 | ILS/FCC | 8.255 | 8.400 |
| AITR1392-8HG-SBS-B-MH1-ETD-4 | | | | | NT | | | |
| AITR1392-8HG-SBS-B-MH2-ETD-1 | 1.501 | 0.2497 | 0.1237 | 0.0103 | 344.00 | ILS/FCC | 8.353 | 8.610 |
| AITR1392-8HG-SBS-B-MH2-ETD-2 | 1.501 | 0.2495 | 0.1224 | 0.0102 | 343.00 | ILS/FCC | 8.424 | 8.592 |
| AITR1392-8HG-SBS-B-MH2-ETD-3 | 1.501 | 0.2498 | 0.1227 | 0.0102 | 353.00 | FCC/ILS | 8.638 | 8.832 |
| AITR1392-8HG-SBS-B-MH2-ETD-4 | | | | | NT | | | |
| AITR1392-8HG-SBS-C-MH1-ETD-1 | 1.503 | 0.2540 | 0.1229 | 0.0102 | 346.00 | ILS/FCC | 8.313 | 8.514 |
| AITR1392-8HG-SBS-C-MH1-ETD-2 | 1.503 | 0.2559 | 0.1237 | 0.0103 | 348.00 | ILS/FCC | 8.245 | 8.499 |
| AITR1392-8HG-SBS-C-MH1-ETD-3 | 1.503 | 0.2539 | 0.1229 | 0.0102 | 347.00 | ILS/FCC | 8.340 | 8.542 |
| AITR1392-8HG-SBS-C-MH1-ETD-4 | | | | | NT | | | |
| AITR1392-8HG-SBS-C-MH2-ETD-1 | 1.502 | 0.2509 | 0.1207 | 0.0101 | 350.00 | FCC/ILS | 8.668 | 8.719 |
| AITR1392-8HG-SBS-C-MH2-ETD-2 | 1.506 | 0.2522 | 0.1212 | 0.0101 | 343.00 | ILS/FCC | 8.416 | 8.500 |
| AITR1392-8HG-SBS-C-MH2-ETD-3 | 1.506 | 0.2528 | 0.1244 | 0.0104 | 359.00 | FCC/ILS | 8.562 | 8.876 |
| AITR1392-8HG-SBS-C-MH2-ETD-4 | | | | | NT | | | |
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| Minimum | 1.5000 | 0.2495 | 0.1144 | 0.0095 | 323.00 | | 8.228 | 7.942 |
| Maximum | 1.5060 | 0.2586 | 0.1244 | 0.0104 | 359.00 | | 8.733 | 8.876 |
| Average | 1.5023 | 0.2537 | 0.1207 | 0.0101 | 342.67 | | 8.389 | 8.441 |
| Standard Deviation | 0.0018 | 0.0025 | 0.0030 | 0.0002 | 9.79 | | 0.157 | 0.264 |
| Coefficient of Variation (%) | 0.12 | 1.00 | 2.48 | 2.48 | 2.86 | | 1.87 | 3.13 |
| No. Specimens | 18 | 18 | 18 | 18 | 18 | | 18 | 18 |

**Notes:**
NT=Not Tested
NR=No Result
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | |
|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | SBS | MH | ETW | | | |

**Test Group: AITR1392-8HG-SBS-MH-ETW**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01
Test Type: Short Beam Shear Condition: ETW #Plies: 12
Test Method: MP1116 (ASTMD2344) Span (4t): 0.48

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized |
| AITR1392-8HG-SBS-A-MH1-ETW-1 | 1.503 | 0.2601 | 0.1178 | 0.0098 | 223.00 | ILS | 5.459 | 5.359 |
| AITR1392-8HG-SBS-A-MH1-ETW-2 | 1.504 | 0.2598 | 0.1178 | 0.0098 | 224.00 | ILS | 5.489 | 5.389 |
| AITR1392-8HG-SBS-A-MH1-ETW-3 | 1.505 | 0.2601 | 0.1173 | 0.0098 | 225.00 | ILS | 5.531 | 5.407 |
| AITR1392-8HG-SBS-A-MH1-ETW-4 | 1.506 | 0.2607 | 0.1179 | 0.0098 | NT | | | |
| AITR1392-8HG-SBS-A-MH2-ETW-1 | 1.507 | 0.2568 | 0.1189 | 0.0099 | 189.00 | ILS | 4.642 | 4.600 |
| AITR1392-8HG-SBS-A-MH2-ETW-2 | 1.507 | 0.2563 | 0.1204 | 0.0100 | 191.00 | ILS | 4.642 | 4.658 |
| AITR1392-8HG-SBS-A-MH2-ETW-3 | 1.515 | 0.2555 | 0.1144 | 0.0095 | 179.00 | ILS | 4.593 | 4.379 |
| AITR1392-8HG-SBS-A-MH2-ETW-4 | 1.507 | 0.2574 | 0.1196 | 0.0100 | NT | | | |
| AITR1392-8HG-SBS-B-MH1-ETW-1 | 1.505 | 0.2542 | 0.1252 | 0.0104 | 217.00 | ILS | 5.114 | 5.335 |
| AITR1392-8HG-SBS-B-MH1-ETW-2 | 1.505 | 0.2545 | 0.1249 | 0.0104 | 221.00 | ILS | 5.214 | 5.427 |
| AITR1392-8HG-SBS-B-MH1-ETW-3 | 1.503 | 0.2538 | 0.1217 | 0.0101 | 191.00 | ILS | 4.638 | 4.704 |
| AITR1392-8HG-SBS-B-MH1-ETW-4 | 1.502 | 0.2564 | 0.1227 | 0.0102 | NT | | | |
| AITR1392-8HG-SBS-B-MH2-ETW-1 | 1.502 | 0.2497 | 0.1216 | 0.0101 | 194.00 | ILS | 4.792 | 4.856 |
| AITR1392-8HG-SBS-B-MH2-ETW-2 | 1.501 | 0.2496 | 0.1238 | 0.0103 | 197.00 | ILS | 4.781 | 4.933 |
| AITR1392-8HG-SBS-B-MH2-ETW-3 | 1.503 | 0.2496 | 0.1210 | 0.0101 | 191.00 | ILS | 4.743 | 4.783 |
| AITR1392-8HG-SBS-B-MH2-ETW-4 | 1.503 | 0.2502 | 0.1232 | 0.0103 | NT | | | |
| AITR1392-8HG-SBS-C-MH1-ETW-1 | 1.506 | 0.2540 | 0.1236 | 0.0103 | 193.00 | ILS | 4.611 | 4.749 |
| AITR1392-8HG-SBS-C-MH1-ETW-2 | 1.505 | 0.2547 | 0.1238 | 0.0103 | 200.00 | ILS | 4.757 | 4.908 |
| AITR1392-8HG-SBS-C-MH1-ETW-3 | 1.504 | 0.2552 | 0.1235 | 0.0103 | 196.00 | ILS | 4.664 | 4.800 |
| AITR1392-8HG-SBS-C-MH1-ETW-4 | 1.506 | 0.2543 | 0.1229 | 0.0102 | NT | | | |
| AITR1392-8HG-SBS-C-MH2-ETW-1 | 1.505 | 0.2510 | 0.1189 | 0.0099 | 184.00 | ILS | 4.624 | 4.582 |
| AITR1392-8HG-SBS-C-MH2-ETW-2 | 1.491 | 0.2521 | 0.1229 | 0.0102 | 192.00 | ILS | 4.648 | 4.760 |
| AITR1392-8HG-SBS-C-MH2-ETW-3 | 1.506 | 0.2515 | 0.1216 | 0.0101 | 188.00 | ILS | 4.610 | 4.672 |
| AITR1392-8HG-SBS-C-MH2-ETW-4 | 1.509 | 0.2515 | 0.1229 | 0.0102 | NT | | | |
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| Minimum | 1.4910 | 0.2496 | 0.1144 | 0.0095 | 179.00 | | 4.593 | 4.379 |
| Maximum | 1.5150 | 0.2607 | 0.1252 | 0.0104 | 225.00 | | 5.531 | 5.427 |
| Average | 1.5046 | 0.2545 | 0.1212 | 0.0101 | 199.72 | | 4.864 | 4.905 |
| Standard Deviation | 0.0040 | 0.0035 | 0.0028 | 0.0002 | 15.02 | | 0.335 | 0.330 |
| Coefficient of Variation (%) | 0.27 | 1.37 | 2.30 | 2.30 | 7.52 | | 6.89 | 6.73 |
| No. Specimens | 24 | 24 | 24 | 24 | 18 | | 18 | 18 |

**Notes:**
NT=Not Tested
NR=No Result
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | |
|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | SBS | MH | ETW2 | | | |

**Test Group: AITR1392-8HG-SBS-MH-ETW2**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01
Test Type: Short Beam Shear Condition: ETW2 #Plies: 12
Test Method: MP1116 (ASTMD2344) Span (4t): 0.48

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized |
| AITR1392-8HG-SBS-A-MH1-ETW2-1 | 1.504 | 0.2601 | 0.1176 | 0.0098 | 174.00 | ILS | 4.266 | 4.181 |
| AITR1392-8HG-SBS-A-MH1-ETW2-2 | 1.505 | 0.2603 | 0.1177 | 0.0098 | 177.00 | ILS | 4.333 | 4.250 |
| AITR1392-8HG-SBS-A-MH1-ETW2-3 | 1.502 | 0.2603 | 0.1185 | 0.0099 | 180.00 | ILS | 4.377 | 4.322 |
| AITR1392-8HG-SBS-A-MH1-ETW2-4 | 1.507 | 0.2601 | 0.1171 | 0.0098 | NT | | | |
| AITR1392-8HG-SBS-A-MH2-ETW2-1 | 1.509 | 0.2564 | 0.1191 | 0.0099 | 149.00 | ILS | 3.659 | 3.632 |
| AITR1392-8HG-SBS-A-MH2-ETW2-2 | 1.506 | 0.2568 | 0.1143 | 0.0095 | 142.00 | ILS | 3.628 | 3.456 |
| AITR1392-8HG-SBS-A-MH2-ETW2-3 | 1.503 | 0.2561 | 0.1197 | 0.0100 | 151.00 | ILS | 3.694 | 3.685 |
| AITR1392-8HG-SBS-A-MH2-ETW2-4 | 1.502 | 0.2560 | 0.1191 | 0.0099 | NT | | | |
| AITR1392-8HG-SBS-B-MH1-ETW2-1 | 1.506 | 0.2567 | 0.1222 | 0.0102 | 154.00 | ILS | 3.682 | 3.750 |
| AITR1392-8HG-SBS-B-MH1-ETW2-2 | 1.503 | 0.2560 | 0.1213 | 0.0101 | 153.00 | ILS | 3.695 | 3.735 |
| AITR1392-8HG-SBS-B-MH1-ETW2-3 | 1.502 | 0.2563 | 0.1180 | 0.0098 | 149.00 | ILS | 3.695 | 3.633 |
| AITR1392-8HG-SBS-B-MH1-ETW2-4 | 1.502 | 0.2567 | 0.1222 | 0.0102 | NT | | | |
| AITR1392-8HG-SBS-B-MH2-ETW2-1 | 1.502 | 0.2565 | 0.1232 | 0.0103 | 158.00 | ILS | 3.750 | 3.850 |
| AITR1392-8HG-SBS-B-MH2-ETW2-2 | 1.505 | 0.2560 | 0.1238 | 0.0103 | 163.00 | ILS | 3.857 | 3.979 |
| AITR1392-8HG-SBS-B-MH2-ETW2-3 | 1.507 | 0.2554 | 0.1239 | 0.0103 | 164.00 | ILS | 3.887 | 4.013 |
| AITR1392-8HG-SBS-B-MH2-ETW2-4 | 1.499 | 0.2561 | 0.1213 | 0.0101 | NT | | | |
| AITR1392-8HG-SBS-C-MH1-ETW2-1 | 1.505 | 0.2563 | 0.1242 | 0.0104 | 164.00 | ILS | 3.864 | 3.999 |
| AITR1392-8HG-SBS-C-MH1-ETW2-2 | 1.504 | 0.2563 | 0.1219 | 0.0102 | 160.00 | ILS | 3.841 | 3.902 |
| AITR1392-8HG-SBS-C-MH1-ETW2-3 | 1.505 | 0.2561 | 0.1246 | 0.0104 | 162.00 | ILS | 3.808 | 3.954 |
| AITR1392-8HG-SBS-C-MH1-ETW2-4 | 1.501 | 0.2561 | 0.1224 | 0.0102 | NT | | | |
| AITR1392-8HG-SBS-C-MH2-ETW2-1 | 1.505 | 0.2517 | 0.1222 | 0.0102 | 161.00 | ILS | 3.926 | 3.998 |
| AITR1392-8HG-SBS-C-MH2-ETW2-2 | 1.510 | 0.2507 | 0.1237 | 0.0103 | 155.00 | ILS | 3.749 | 3.864 |
| AITR1392-8HG-SBS-C-MH2-ETW2-3 | 1.504 | 0.2510 | 0.1241 | 0.0103 | 155.00 | ILS | 3.732 | 3.860 |
| AITR1392-8HG-SBS-C-MH2-ETW2-4 | 1.498 | 0.2517 | 0.1234 | 0.0103 | NT | | | |
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| Minimum | 1.4980 | 0.2507 | 0.1143 | 0.0095 | 142.00 | | 3.628 | 3.456 |
| Maximum | 1.5100 | 0.2603 | 0.1246 | 0.0104 | 180.00 | | 4.377 | 4.322 |
| Average | 1.5040 | 0.2561 | 0.1211 | 0.0101 | 159.50 | | 3.858 | 3.892 |
| Standard Deviation | 0.0028 | 0.0027 | 0.0028 | 0.0002 | 10.04 | | 0.232 | 0.225 |
| Coefficient of Variation (%) | 0.19 | 1.04 | 2.32 | 2.32 | 6.29 | | 6.00 | 5.78 |
| No. Specimens | 24 | 24 | 24 | 24 | 18 | | 18 | 18 |

**Notes:**
NT=Not Tested
NR=No Result
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | UNT1 | MH | CTD | | | | | | |

**Test Group: AITR1392-8HG-UNT1-MH-CTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01 #Plies: 12

Test Type: Quasi Unnotched Tensile Condition: CTD

Test Method: MP1112 (ASTMD3039) Modulus/Poisson's Range: Chord 0.1% to 0.3%

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | | Modulus, Msi | | Poisson's Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized | Measured | Normalized | |
| AITR1392-8HG-UNT1-A-MH1-CTD-1 | 10.008 | 0.9940 | 0.1160 | 0.0097 | 7297.00 | LAT | 63.285 | 61.175 | 2.81 | 2.72 | |
| AITR1392-8HG-UNT1-A-MH1-CTD-2 | 10.004 | 0.9940 | 0.1190 | 0.0099 | 7240.00 | LAT | 61.208 | 60.698 | 2.93 | 2.91 | |
| AITR1392-8HG-UNT1-A-MH1-CTD-3 | 10.003 | 0.9940 | 0.1190 | 0.0099 | 7503.00 | LAT | 63.431 | 62.902 | 2.98 | 2.96 | |
| AITR1392-8HG-UNT1-A-MH1-CTD-4 | 10.006 | 0.9940 | 0.1150 | 0.0096 | NT | | | | NT | | |
| AITR1392-8HG-UNT1-A-MH2-CTD-1 | 10.006 | 1.0080 | 0.1180 | 0.0098 | 7498.00 | LAT | 63.038 | 61.987 | 3.11 | 3.06 | |
| AITR1392-8HG-UNT1-A-MH2-CTD-2 | 10.001 | 1.0080 | 0.1160 | 0.0097 | 7632.00 | LAT | 65.271 | 63.095 | 3.18 | 3.07 | |
| AITR1392-8HG-UNT1-A-MH2-CTD-3 | 10.002 | 1.0080 | 0.1170 | 0.0098 | 7494.00 | LAT | 63.543 | 61.954 | 3.14 | 3.06 | |
| AITR1392-8HG-UNT1-A-MH2-CTD-4 | 10.001 | 1.0080 | 0.1170 | 0.0098 | NT | | | | NT | | |
| AITR1392-8HG-UNT1-B-MH1-CTD-1 | 10.002 | 1.0000 | 0.1190 | 0.0099 | 7596.00 | LAT | 63.832 | 63.300 | 3.02 | 2.99 | |
| AITR1392-8HG-UNT1-B-MH1-CTD-2 | 10.006 | 1.0050 | 0.1200 | 0.0100 | 7760.00 | LAT | 64.345 | 64.345 | 3.02 | 3.02 | |
| AITR1392-8HG-UNT1-B-MH1-CTD-3 | 10.005 | 1.0000 | 0.1210 | 0.0101 | 7646.00 | LAT | 63.190 | 63.717 | 2.96 | 2.98 | |
| AITR1392-8HG-UNT1-B-MH1-CTD-4 | 10.006 | 1.0050 | 0.1200 | 0.0100 | NT | | | | NT | | |
| AITR1392-8HG-UNT1-B-MH2-CTD-1 | 10.005 | 1.0050 | 0.1190 | 0.0099 | 7747.00 | LAT | 64.777 | 64.237 | 3.04 | 3.02 | |
| AITR1392-8HG-UNT1-B-MH2-CTD-2 | 10.009 | 1.0050 | 0.1190 | 0.0099 | 7466.00 | LWT | 62.427 | 61.907 | 3.05 | 3.03 | |
| AITR1392-8HG-UNT1-B-MH2-CTD-3 | 10.005 | 1.0040 | 0.1190 | 0.0099 | 7660.00 | LAT | 64.113 | 63.579 | 3.01 | 2.99 | |
| AITR1392-8HG-UNT1-B-MH2-CTD-4 | 10.004 | 1.0000 | 0.1180 | 0.0098 | NT | | | | NT | | |
| AITR1392-8HG-UNT1-C-MH1-CTD-1 | 10.005 | 1.0050 | 0.1100 | 0.0092 | 7581.00 | LAT | 68.575 | 62.861 | 3.18 | 2.92 | |
| AITR1392-8HG-UNT1-C-MH1-CTD-2 | 10.006 | 1.0050 | 0.1190 | 0.0099 | 7438.00 | LWT | 62.193 | 61.675 | 2.97 | 2.94 | |
| AITR1392-8HG-UNT1-C-MH1-CTD-3 | 10.006 | 1.0050 | 0.1170 | 0.0098 | 7503.00 | LWT | 63.809 | 62.214 | 3.10 | 3.03 | |
| AITR1392-8HG-UNT1-C-MH1-CTD-4 | 10.002 | 1.0050 | 0.1210 | 0.0101 | NT | | | | NT | | |
| AITR1392-8HG-UNT1-C-MH2-CTD-1 | 10.009 | 1.0050 | 0.1190 | 0.0099 | 7405.00 | LWT | 61.917 | 61.401 | 2.97 | 2.95 | |
| AITR1392-8HG-UNT1-C-MH2-CTD-2 | 10.005 | 1.0050 | 0.1200 | 0.0100 | 7557.00 | LWT | 62.662 | 62.662 | 2.93 | 2.93 | |
| AITR1392-8HG-UNT1-C-MH2-CTD-3 | 10.004 | 1.0050 | 0.1210 | 0.0101 | 7762.00 | LWT | 63.830 | 64.362 | 3.00 | 3.03 | |
| AITR1392-8HG-UNT1-C-MH2-CTD-4 | 10.001 | 1.0050 | 0.1210 | 0.0101 | NT | | | | NT | | |
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| Minimum | 10.0010 | 0.9940 | 0.1100 | 0.0092 | 7240.00 | | 61.208 | 60.698 | 2.809 | 2.716 | |
| Maximum | 10.0090 | 1.0080 | 0.1210 | 0.0101 | 7762.00 | | 68.575 | 64.362 | 3.180 | 3.071 | |
| Average | 10.0046 | 1.0030 | 0.1183 | 0.0099 | 7543.61 | | 63.636 | 62.671 | 3.023 | 2.977 | |
| Standard Deviation | 0.0023 | 0.0047 | 0.0024 | 0.0002 | 147.38 | | 1.596 | 1.117 | 0.094 | 0.082 | |
| Coefficient of Variation (%) | 0.02 | 0.46 | 2.06 | 2.06 | 1.95 | | 2.51 | 1.78 | 3.13 | 2.77 | |
| No. Specimens | 24 | 24 | 24 | 24 | 18 | | 18 | 18 | 18 | 18 | |

**Notes:**
NT=Not Tested
NR=No Result
GE=Gage Error
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | UNT1 | MH | RTD | | | | | | |

**Test Group: AITR1392-8HG-UNT1-MH-RTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01 #Plies: 12

Test Type: Quasi Unnotched Tensile Condition: RTD

Test Method: MP1112 (ASTMD3039) Modulus/Poisson's Range: Chord 0.1% to 0.3%

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | | Modulus, Msi | | Poisson's Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized | Measured | Normalized | |
| AITR1392-8HG-UNT1-A-MH1-RTD-1 | 10.000 | 0.9950 | 0.1190 | 0.0099 | 6047.33 | LAT | 51.073 | 50.648 | 2.88 | 2.86 | |
| AITR1392-8HG-UNT1-A-MH1-RTD-2 | 10.000 | 0.9920 | 0.1190 | 0.0099 | 6379.16 | LAB | 54.039 | 53.588 | 2.81 | 2.79 | |
| AITR1392-8HG-UNT1-A-MH1-RTD-3 | 10.000 | 0.9900 | 0.1190 | 0.0099 | 5996.06 | LAT | 50.896 | 50.472 | GE | | |
| AITR1392-8HG-UNT1-A-MH1-RTD-4 | | | | | NT | | | | NT | | |
| AITR1392-8HG-UNT1-A-MH2-RTD-1 | 10.000 | 1.0080 | 0.1180 | 0.0098 | 6566.39 | LGM | 55.206 | 54.286 | GE | | |
| AITR1392-8HG-UNT1-A-MH2-RTD-2 | 10.000 | 1.0090 | 0.1140 | 0.0095 | 6719.44 | LGM | 58.417 | 55.496 | 3.33 | 3.16 | |
| AITR1392-8HG-UNT1-A-MH2-RTD-3 | 10.000 | 1.0060 | 0.1190 | 0.0099 | 6677.91 | LAT | 55.782 | 55.317 | GE | | |
| AITR1392-8HG-UNT1-A-MH2-RTD-4 | | | | | NT | | | | NT | | |
| AITR1392-8HG-UNT1-B-MH1-RTD-1 | 10.000 | 1.0060 | 0.1180 | 0.0098 | 6465.39 | LGM | 54.465 | 53.557 | 2.83 | 2.78 | |
| AITR1392-8HG-UNT1-B-MH1-RTD-2 | 10.000 | 1.0050 | 0.1170 | 0.0098 | 6391.24 | LGM | 54.354 | 52.995 | 2.93 | 2.86 | |
| AITR1392-8HG-UNT1-B-MH1-RTD-3 | 10.000 | 1.0060 | 0.1210 | 0.0101 | 6257.78 | LAT | 51.409 | 51.837 | GE | | |
| AITR1392-8HG-UNT1-B-MH1-RTD-4 | | | | | NT | | | | NT | | |
| AITR1392-8HG-UNT1-B-MH2-RTD-1 | 10.000 | 1.0050 | 0.1160 | 0.0097 | 6478.54 | LAB | 55.572 | 53.719 | 3.11 | 3.01 | |
| AITR1392-8HG-UNT1-B-MH2-RTD-2 | 10.000 | 1.0050 | 0.1180 | 0.0098 | 6319.53 | LGM | 53.289 | 52.401 | 3.34 | 3.28 | |
| AITR1392-8HG-UNT1-B-MH2-RTD-3 | 10.000 | 1.0000 | 0.1190 | 0.0099 | 6453.18 | LGM | 54.228 | 53.777 | 2.91 | 2.89 | |
| AITR1392-8HG-UNT1-B-MH2-RTD-4 | | | | | NT | | | | NT | | |
| AITR1392-8HG-UNT1-C-MH1-RTD-1 | 10.000 | 0.9990 | 0.1180 | 0.0098 | 6248.42 | LGT | 53.006 | 52.122 | 2.67 | 2.62 | |
| AITR1392-8HG-UNT1-C-MH1-RTD-2 | 10.000 | 1.0040 | 0.1190 | 0.0099 | 6275.88 | LAT | 52.528 | 52.091 | 2.92 | 2.89 | |
| AITR1392-8HG-UNT1-C-MH1-RTD-3 | 10.000 | 1.0040 | 0.1200 | 0.0100 | 6561.61 | LGB | 54.462 | 54.462 | 2.73 | 2.73 | |
| AITR1392-8HG-UNT1-C-MH1-RTD-4 | | | | | NT | | | | NT | | |
| AITR1392-8HG-UNT1-C-MH2-RTD-1 | 10.000 | 1.0050 | 0.1170 | 0.0098 | 6458.15 | LGT | 54.923 | 53.550 | 2.89 | 2.82 | |
| AITR1392-8HG-UNT1-C-MH2-RTD-2 | 10.000 | 1.0050 | 0.1140 | 0.0095 | 6562.95 | LGT | 57.283 | 54.419 | 2.80 | 2.66 | |
| AITR1392-8HG-UNT1-C-MH2-RTD-3 | 10.000 | 1.0050 | 0.1220 | 0.0102 | 6569.93 | LGT | 53.584 | 54.477 | 2.69 | 2.73 | |
| AITR1392-8HG-UNT1-C-MH2-RTD-4 | | | | | NT | | | | NT | | |
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| | | | | | | | | | | | |
| Minimum | 10.0000 | 0.9900 | 0.1140 | 0.0095 | 5996.06 | | 50.896 | 50.472 | 2.666 | 2.622 | |
| Maximum | 10.0000 | 1.0090 | 0.1220 | 0.0102 | 6719.44 | | 58.417 | 55.496 | 3.340 | 3.284 | |
| Average | 10.0000 | 1.0027 | 0.1182 | 0.0098 | 6412.72 | | 54.140 | 53.290 | 2.917 | 2.863 | |
| Standard Deviation | 0.0000 | 0.0054 | 0.0021 | 0.0002 | 196.35 | | 1.989 | 1.443 | 0.210 | 0.184 | |
| Coefficient of Variation (%) | 0.00 | 0.54 | 1.75 | 1.75 | 3.06 | | 3.67 | 2.71 | 7.19 | 6.41 | |
| No. Specimens | 18 | 18 | 18 | 18 | 18 | | 18 | 18 | 14 | 14 | |

**Notes:**
NT=Not Tested
NR=No Result
GE=Gage Error
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | UNT1 | MH | ETW2 | | | | | | |

**Test Group: AITR1392-8HG-UNT1-MH-ETW2**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01 #Plies: 12

Test Type: Quasi Unnotched Tensile Condition: ETW2

Test Method: MP1112 (ASTMD3039) Modulus/Poisson's Range: Chord 0.1% to 0.3%

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | | Modulus, Msi | | Poisson's Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized | Measured | Normalized | |
| AITR1392-8HG-UNT1-A-MH1-ETW2-1 | 10.016 | 0.9930 | 0.1120 | 0.0093 | 3924.00 | LGM | 35.283 | 32.931 | 2.80 | 2.61 | |
| AITR1392-8HG-UNT1-A-MH1-ETW2-2 | 10.013 | 0.9940 | 0.1170 | 0.0098 | 3963.00 | LGT | 34.076 | 33.224 | 3.04 | 2.96 | |
| AITR1392-8HG-UNT1-A-MH1-ETW2-3 | 10.016 | 0.9940 | 0.1180 | 0.0098 | 3980.00 | LGM | 33.932 | 33.367 | 2.75 | 2.71 | |
| AITR1392-8HG-UNT1-A-MH1-ETW2-4 | 10.018 | 0.9930 | 0.1170 | 0.0098 | NT | | | | NT | | |
| AITR1392-8HG-UNT1-A-MH2-ETW2-1 | 10.012 | 1.0090 | 0.1180 | 0.0098 | 3830.00 | LAT | 32.168 | 31.632 | 2.82 | 2.78 | |
| AITR1392-8HG-UNT1-A-MH2-ETW2-2 | 10.012 | 1.0100 | 0.1160 | 0.0097 | 3766.00 | LAT | 32.144 | 31.073 | GE | | |
| AITR1392-8HG-UNT1-A-MH2-ETW2-3 | 10.012 | 1.0090 | 0.1190 | 0.0099 | 3885.00 | LGT | 32.356 | 32.086 | 2.91 | 2.89 | |
| AITR1392-8HG-UNT1-A-MH2-ETW2-4 | 10.010 | 1.0090 | 0.1180 | 0.0098 | 3951.00 | LAB | 33.184 | 32.631 | 2.32 | 2.28 | |
| Minimum | 10.0100 | 0.9930 | 0.1120 | 0.0093 | 3766.00 | | 32.144 | 31.073 | 2.323 | 2.284 | |
| Maximum | 10.0180 | 1.0100 | 0.1190 | 0.0099 | 3980.00 | | 35.283 | 33.367 | 3.036 | 2.960 | |
| Average | 10.0136 | 1.0014 | 0.1169 | 0.0097 | 3899.86 | | 33.306 | 32.421 | 2.774 | 2.704 | |
| Standard Deviation | 0.0027 | 0.0084 | 0.0022 | 0.0002 | 78.13 | | 1.187 | 0.856 | 0.243 | 0.241 | |
| Coefficient of Variation (%) | 0.03 | 0.84 | 1.85 | 1.85 | 2.00 | | 3.56 | 2.64 | 8.74 | 8.90 | |
| No. Specimens | 8 | 8 | 8 | 8 | 7 | | 7 | 7 | 6 | 6 | |

**Notes:**
NT=Not Tested
NR=No Result
GE=Gage Error
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | UNC1 | MH | RTD | | | | | | |

**Test Group: AITR1392-8HG-UNC1-MH-RTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01 #Plies: 12

Test Type: Quasi Unnotched Compression Condition: RTD

Test Method: MP1114 (ASTMD6641) Modulus/Poisson's Range: Chord 0.1% to 0.3%

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | | Modulus, Msi | | Poisson's Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized | Measured | Normalized | |
| AITR1392-8HG-UNC1-A-MH1-RTD-1 | 5.508 | 0.5060 | 0.1160 | 0.0097 | 3775.93 | BGM | 64.330 | 62.186 | 3.00 | 2.90 | 0.309 |
| AITR1392-8HG-UNC1-A-MH1-RTD-2 | 5.509 | 0.5050 | 0.1160 | 0.0097 | 3799.13 | BGM | 64.854 | 62.692 | 3.04 | 2.94 | 0.304 |
| AITR1392-8HG-UNC1-A-MH1-RTD-3 | 5.506 | 0.5060 | 0.1150 | 0.0096 | 3635.03 | BGM | 62.468 | 59.865 | 2.91 | 2.79 | 0.304 |
| AITR1392-8HG-UNC1-A-MH1-RTD-4 | 5.509 | 0.5050 | 0.1140 | 0.0095 | NT | | | | NT | | NT |
| AITR1392-8HG-UNC1-A-MH2-RTD-1 | 5.509 | 0.5060 | 0.1160 | 0.0097 | 3767.82 | BGM | 64.192 | 62.052 | 3.30 | 3.19 | 0.366 |
| AITR1392-8HG-UNC1-A-MH2-RTD-2 | 5.509 | 0.5050 | 0.1160 | 0.0097 | 3620.37 | BGM | 61.802 | 59.742 | 3.31 | 3.20 | 0.271 |
| AITR1392-8HG-UNC1-A-MH2-RTD-3 | 5.509 | 0.5070 | 0.1190 | 0.0099 | 3796.79 | BGB | 62.931 | 62.406 | 2.95 | 2.92 | 0.279 |
| AITR1392-8HG-UNC1-A-MH2-RTD-4 | 5.509 | 0.5070 | 0.1170 | 0.0098 | NT | | | | NT | | NT |
| AITR1392-8HG-UNC1-B-MH1-RTD-1 | 5.505 | 0.5070 | 0.1160 | 0.0097 | 4116.21 | BGT | 69.989 | 67.656 | 3.21 | 3.10 | 0.314 |
| AITR1392-8HG-UNC1-B-MH1-RTD-2 | 5.507 | 0.5080 | 0.1170 | 0.0098 | 4207.35 | BGB | 70.788 | 69.018 | 3.07 | 2.99 | 0.313 |
| AITR1392-8HG-UNC1-B-MH1-RTD-3 | 5.505 | 0.5080 | 0.1180 | 0.0098 | 4369.69 | BGM | 72.896 | 71.681 | 3.28 | 3.23 | 0.310 |
| AITR1392-8HG-UNC1-B-MH1-RTD-4 | 5.504 | 0.5080 | 0.1180 | 0.0098 | NT | | | | NT | | NT |
| AITR1392-8HG-UNC1-B-MH2-RTD-1 | 5.505 | 0.5060 | 0.1190 | 0.0099 | 4244.72 | BGB | 70.494 | 69.906 | 3.13 | 3.11 | 0.331 |
| AITR1392-8HG-UNC1-B-MH2-RTD-2 | 5.505 | 0.5060 | 0.1160 | 0.0097 | 4344.14 | BGM | 74.011 | 71.544 | 4.13 | 3.99 | 0.221 |
| AITR1392-8HG-UNC1-B-MH2-RTD-3 | 5.507 | 0.5060 | 0.1130 | 0.0094 | 3845.85 | BGM | 67.261 | 63.337 | 3.19 | 3.00 | 0.324 |
| AITR1392-8HG-UNC1-B-MH2-RTD-4 | 5.507 | 0.5060 | 0.1170 | 0.0098 | 4055.78 | BGM | 68.507 | 66.795 | 3.08 | 3.00 | 0.311 |
| AITR1392-8HG-UNC1-C-MH1-RTD-1 | 5.505 | 0.5070 | 0.1170 | 0.0098 | 4032.48 | BGM | 67.980 | 66.280 | 3.35 | 3.26 | 0.312 |
| AITR1392-8HG-UNC1-C-MH1-RTD-2 | 5.507 | 0.5070 | 0.1150 | 0.0096 | 4103.65 | BGM | 70.383 | 67.450 | 3.12 | 2.99 | 0.322 |
| AITR1392-8HG-UNC1-C-MH1-RTD-3 | 5.507 | 0.5070 | 0.1180 | 0.0098 | 4137.62 | BGM | 69.161 | 68.008 | 2.97 | 2.92 | 0.327 |
| AITR1392-8HG-UNC1-C-MH1-RTD-4 | 5.505 | 0.5070 | 0.1200 | 0.0100 | NT | | | | NT | | NT |
| AITR1392-8HG-UNC1-C-MH2-RTD-1 | 5.500 | 0.5030 | 0.1170 | 0.0098 | 4152.03 | BGM | 70.552 | 68.788 | 2.91 | 2.84 | 0.273 |
| AITR1392-8HG-UNC1-C-MH2-RTD-2 | 5.498 | 0.5030 | 0.1150 | 0.0096 | 4073.46 | BGB | 70.420 | 67.486 | 3.20 | 3.06 | 0.318 |
| AITR1392-8HG-UNC1-C-MH2-RTD-3 | 5.500 | 0.5030 | 0.1150 | 0.0096 | 3801.42 | BGM | 65.717 | 62.979 | 3.05 | 2.92 | 0.312 |
| AITR1392-8HG-UNC1-C-MH2-RTD-4 | 5.496 | 0.5020 | 0.1170 | 0.0098 | NT | | | | NT | | NT |
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| Minimum | 5.4960 | 0.5020 | 0.1130 | 0.0094 | 3620.37 | | 61.802 | 59.742 | 2.907 | 2.786 | 0.2208 |
| Maximum | 5.5090 | 0.5080 | 0.1200 | 0.0100 | 4369.69 | | 74.011 | 71.681 | 4.130 | 3.992 | 0.3663 |
| Average | 5.5055 | 0.5059 | 0.1165 | 0.0097 | 3993.66 | | 67.828 | 65.783 | 3.168 | 3.071 | 0.3065 |
| Standard Deviation | 0.0036 | 0.0017 | 0.0016 | 0.0001 | 230.86 | | 3.617 | 3.749 | 0.270 | 0.260 | 0.0298 |
| Coefficient of Variation (%) | 0.07 | 0.33 | 1.41 | 1.41 | 5.78 | | 5.33 | 5.70 | 8.53 | 8.47 | 9.73 |
| No. Specimens | 24 | 24 | 24 | 24 | 19 | | 19 | 19 | 19 | 19 | 19 |

**Notes:**
NT=Not Tested
NR=No Result
GE=Gage Error
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | UNC1 | MH | ETW | | | | | | |

**Test Group: AITR1392-8HG-UNC1-MH-ETW**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01 #Plies: 12

Test Type: Quasi Unnotched Compression Condition: ETW

Test Method: MP1114 (ASTMD6641) Modulus/Poisson's Range: Chord 0.1% to 0.3%

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | | Modulus, Msi | | Poisson's Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized | Measured | Normalized | |
| AITR1392-8HG-UNC1-A-MH1-ETW-1 | 5.513 | 0.5050 | 0.1130 | 0.0094 | 1964.00 | BGM | 34.417 | 32.409 | 3.55 | 3.34 | 0.316 |
| AITR1392-8HG-UNC1-A-MH1-ETW-2 | 5.510 | 0.5050 | 0.1170 | 0.0098 | 2052.00 | BGM | 34.730 | 33.861 | 3.02 | 2.95 | 0.336 |
| AITR1392-8HG-UNC1-A-MH1-ETW-3 | 5.510 | 0.5050 | 0.1170 | 0.0098 | 1982.00 | HGM | 33.545 | 32.706 | 2.71 | 2.65 | 0.250 |
| AITR1392-8HG-UNC1-A-MH1-ETW-4 | 5.508 | 0.5050 | 0.1100 | 0.0092 | NT | | | | NT | | NT |
| AITR1392-8HG-UNC1-A-MH2-ETW-1 | 5.511 | 0.5070 | 0.1150 | 0.0096 | 2402.00 | HGM | 41.197 | 39.481 | 3.18 | 3.05 | 0.252 |
| AITR1392-8HG-UNC1-A-MH2-ETW-2 | 5.511 | 0.5060 | 0.1170 | 0.0098 | 2257.00 | HGM | 38.124 | 37.171 | 3.18 | 3.10 | 0.371 |
| AITR1392-8HG-UNC1-A-MH2-ETW-3 | 5.514 | 0.5060 | 0.1190 | 0.0099 | 2274.00 | HGM | 37.765 | 37.451 | 2.79 | 2.77 | 0.273 |
| AITR1392-8HG-UNC1-A-MH2-ETW-4 | 5.512 | 0.5060 | 0.1160 | 0.0097 | NT | | | | NT | | NT |
| Minimum | 5.5080 | 0.5050 | 0.1100 | 0.0092 | 1964.00 | | 33.545 | 32.409 | 2.713 | 2.645 | 0.2501 |
| Maximum | 5.5140 | 0.5070 | 0.1190 | 0.0099 | 2402.00 | | 41.197 | 39.481 | 3.547 | 3.340 | 0.3714 |
| Average | 5.5111 | 0.5056 | 0.1155 | 0.0096 | 2155.17 | | 36.630 | 35.513 | 3.071 | 2.974 | 0.2999 |
| Standard Deviation | 0.0019 | 0.0007 | 0.0028 | 0.0002 | 180.33 | | 2.912 | 2.915 | 0.303 | 0.247 | 0.0492 |
| Coefficient of Variation (%) | 0.03 | 0.15 | 2.45 | 2.45 | 8.37 | | 7.95 | 8.21 | 9.86 | 8.31 | 16.41 |
| No. Specimens | 8 | 8 | 8 | 8 | 6 | | 6 | 6 | 6 | 6 | 6 |

**Notes:**
NT=Not Tested
NR=No Result
GE=Gage Error
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | UNC1 | MH | ETW2 | | | | | | |

**Test Group: AITR1392-8HG-UNC1-MH-ETW2**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01 #Plies: 12

Test Type: Quasi Unnotched Compression Condition: ETW2

Test Method: MP1114 (ASTMD6641) Modulus/Poisson's Range: Chord 0.1% to 0.3%

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | | Modulus, Msi | | Poisson's Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized | Measured | Normalized | |
| AITR1392-8HG-UNC1-A-MH1-ETW2-1 | 5.508 | 0.5050 | 0.1130 | 0.0094 | 1707.00 | BGM | 29.913 | 28.168 | 4.31 | 4.06 | 0.407 |
| AITR1392-8HG-UNC1-A-MH1-ETW2-2 | 5.509 | 0.5050 | 0.1160 | 0.0097 | 1683.00 | AGM | 28.730 | 27.772 | GE | | GE |
| AITR1392-8HG-UNC1-A-MH1-ETW2-3 | 5.509 | 0.5050 | 0.1150 | 0.0096 | 1882.00 | BGM | 32.406 | 31.056 | 3.47 | 3.33 | 0.372 |
| AITR1392-8HG-UNC1-A-MH1-ETW2-4 | 5.509 | 0.5050 | 0.1170 | 0.0098 | NT | | | | NT | | NT |
| AITR1392-8HG-UNC1-A-MH2-ETW2-1 | 5.510 | 0.5070 | 0.1130 | 0.0094 | 1612.00 | HGM | 28.137 | 26.496 | 4.48 | 4.22 | 0.396 |
| AITR1392-8HG-UNC1-A-MH2-ETW2-2 | 5.512 | 0.5070 | 0.1140 | 0.0095 | 1893.00 | HAM | 32.752 | 31.114 | 4.13 | 3.93 | 0.323 |
| AITR1392-8HG-UNC1-A-MH2-ETW2-3 | 5.515 | 0.5070 | 0.1140 | 0.0095 | 1881.00 | HAM | 32.544 | 30.917 | 4.25 | 4.04 | 0.354 |
| AITR1392-8HG-UNC1-A-MH2-ETW2-4 | 5.515 | 0.5070 | 0.1170 | 0.0098 | NT | | | | NT | | NT |
| AITR1392-8HG-UNC1-B-MH1-ETW2-1 | 5.512 | 0.5090 | 0.1160 | 0.0097 | 2299.00 | HGM | 38.937 | 37.639 | 4.36 | 4.21 | 0.441 |
| AITR1392-8HG-UNC1-B-MH1-ETW2-2 | 5.508 | 0.5060 | 0.1200 | 0.0100 | 2337.00 | HAM | 38.488 | 38.488 | 3.91 | 3.91 | 0.433 |
| AITR1392-8HG-UNC1-B-MH1-ETW2-3 | 5.510 | 0.5070 | 0.1170 | 0.0098 | 2161.00 | HAM | 36.430 | 35.519 | GE | | GE |
| AITR1392-8HG-UNC1-B-MH1-ETW2-4 | 5.509 | 0.5080 | 0.1120 | 0.0093 | NT | | | | NT | | NT |
| AITR1392-8HG-UNC1-B-MH2-ETW2-1 | 5.510 | 0.5070 | 0.1170 | 0.0098 | 2128.00 | HAM | 35.874 | 34.977 | GE | | GE |
| AITR1392-8HG-UNC1-B-MH2-ETW2-2 | 5.510 | 0.5070 | 0.1160 | 0.0097 | 2261.00 | HAM | 38.445 | 37.163 | 4.45 | 4.31 | 0.488 |
| AITR1392-8HG-UNC1-B-MH2-ETW2-3 | 5.509 | 0.5070 | 0.1150 | 0.0096 | 1991.00 | HAT | 34.148 | 32.725 | 4.10 | 3.93 | 0.422 |
| AITR1392-8HG-UNC1-B-MH2-ETW2-4 | 5.510 | 0.5070 | 0.1180 | 0.0098 | NT | | | | NT | | NT |
| AITR1392-8HG-UNC1-C-MH1-ETW2-1 | 5.509 | 0.5070 | 0.1110 | 0.0093 | 1888.00 | HGT | 33.548 | 31.032 | 4.69 | 4.33 | 0.427 |
| AITR1392-8HG-UNC1-C-MH1-ETW2-2 | 5.509 | 0.5070 | 0.1180 | 0.0098 | 2168.00 | BGM | 36.238 | 35.634 | 4.47 | 4.39 | 0.450 |
| AITR1392-8HG-UNC1-C-MH1-ETW2-3 | 5.509 | 0.5070 | 0.1120 | 0.0093 | 1995.00 | HAB | 35.133 | 32.791 | 3.97 | 3.71 | 0.406 |
| AITR1392-8HG-UNC1-C-MH1-ETW2-4 | 5.509 | 0.5060 | 0.1170 | 0.0098 | NT | | | | NT | | NT |
| AITR1392-8HG-UNC1-C-MH2-ETW2-1 | 5.501 | 0.5030 | 0.1160 | 0.0097 | 1852.00 | BGM | 31.741 | 30.683 | 4.18 | 4.04 | 0.459 |
| AITR1392-8HG-UNC1-C-MH2-ETW2-2 | 5.501 | 0.5030 | 0.1170 | 0.0098 | 2060.00 | BAT | 35.004 | 34.129 | 4.39 | 4.28 | 0.465 |
| AITR1392-8HG-UNC1-C-MH2-ETW2-3 | 5.501 | 0.5030 | 0.1180 | 0.0098 | 2022.00 | HAB | 34.067 | 33.499 | 4.02 | 3.95 | 0.370 |
| AITR1392-8HG-UNC1-C-MH2-ETW2-4 | 5.500 | 0.5030 | 0.1160 | 0.0097 | NT | | | | NT | | NT |
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| Minimum | 5.5000 | 0.5030 | 0.1110 | 0.0093 | 1612.00 | | 28.137 | 26.496 | 3.470 | 3.325 | 0.3233 |
| Maximum | 5.5150 | 0.5090 | 0.1200 | 0.0100 | 2337.00 | | 38.937 | 38.488 | 4.686 | 4.393 | 0.4877 |
| Average | 5.5085 | 0.5060 | 0.1156 | 0.0096 | 1990.00 | | 34.030 | 32.767 | 4.211 | 4.042 | 0.4141 |
| Standard Deviation | 0.0040 | 0.0017 | 0.0022 | 0.0002 | 210.72 | | 3.175 | 3.436 | 0.297 | 0.276 | 0.0452 |
| Coefficient of Variation (%) | 0.07 | 0.33 | 1.94 | 1.94 | 10.59 | | 9.33 | 10.49 | 7.06 | 6.84 | 10.91 |
| No. Specimens | 24 | 24 | 24 | 24 | 18 | | 18 | 18 | 15 | 15 | 15 |

**Notes:**

NT=Not Tested
NR=No Result
GE=Gage Error
FM=Failure Mode Unacceptable

A-MH1-ETW2-3 modulus from 1700 to 3700, C-MH2-ETW2-3 modulus from 2000 to 4000

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | |
|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | SBS1 | MH | RTD | | | |

**Test Group: AITR1392-8HG-SBS1-MH-RTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01

Test Type: Quasi Short Beam Shear Condition: RTD #Plies: 12

Test Method: MP1116 (ASTMD2344) Span (4t): 0.47

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized |
| AITR1392-8HG-SBS1-A-MH1-RTD-1 | 1.502 | 0.2580 | 0.1188 | 0.0099 | 429.00 | FCC | 10.497 | 10.392 |
| AITR1392-8HG-SBS1-A-MH1-RTD-2 | 1.506 | 0.2580 | 0.1187 | 0.0099 | 415.00 | FCC | 10.163 | 10.053 |
| AITR1392-8HG-SBS1-A-MH1-RTD-3 | 1.508 | 0.2576 | 0.1187 | 0.0099 | 424.00 | FTC | 10.400 | 10.287 |
| AITR1392-8HG-SBS1-A-MH1-RTD-4 | | | | | NT | | | |
| AITR1392-8HG-SBS1-A-MH2-RTD-1 | 1.503 | 0.2583 | 0.1168 | 0.0097 | 388.00 | ILS | 9.646 | 9.388 |
| AITR1392-8HG-SBS1-A-MH2-RTD-2 | 1.508 | 0.2578 | 0.1161 | 0.0097 | 386.00 | ILS | 9.672 | 9.358 |
| AITR1392-8HG-SBS1-A-MH2-RTD-3 | 1.501 | 0.2581 | 0.1155 | 0.0096 | 382.00 | ILS | 9.611 | 9.250 |
| AITR1392-8HG-SBS1-A-MH2-RTD-4 | | | | | NT | | | |
| AITR1392-8HG-SBS1-B-MH1-RTD-1 | 1.583 | 0.2558 | 0.1205 | 0.0100 | 378.00 | ILS | 9.197 | 9.236 |
| AITR1392-8HG-SBS1-B-MH1-RTD-2 | 1.588 | 0.2567 | 0.1210 | 0.0101 | 387.00 | ILS | 9.345 | 9.422 |
| AITR1392-8HG-SBS1-B-MH1-RTD-3 | 1.582 | 0.2556 | 0.1196 | 0.0100 | 376.00 | ILS | 9.225 | 9.194 |
| AITR1392-8HG-SBS1-B-MH1-RTD-4 | | | | | NT | | | |
| AITR1392-8HG-SBS1-B-MH2-RTD-1 | 1.574 | 0.2560 | 0.1103 | 0.0092 | 349.00 | ILS | 9.270 | 8.521 |
| AITR1392-8HG-SBS1-B-MH2-RTD-2 | 1.583 | 0.2560 | 0.1139 | 0.0095 | 356.00 | ILS | 9.157 | 8.691 |
| AITR1392-8HG-SBS1-B-MH2-RTD-3 | 1.586 | 0.2563 | 0.1144 | 0.0095 | 363.00 | ILS | 9.285 | 8.852 |
| AITR1392-8HG-SBS1-B-MH2-RTD-4 | | | | | NT | | | |
| AITR1392-8HG-SBS1-C-MH1-RTD-1 | 1.584 | 0.2538 | 0.1159 | 0.0097 | 366.00 | FTC/ILS | 9.332 | 9.013 |
| AITR1392-8HG-SBS1-C-MH1-RTD-2 | 1.589 | 0.2538 | 0.1166 | 0.0097 | 364.00 | FTC/ILS | 9.225 | 8.964 |
| AITR1392-8HG-SBS1-C-MH1-RTD-3 | 1.590 | 0.2523 | 0.1162 | 0.0097 | 363.00 | ILS | 9.286 | 8.992 |
| AITR1392-8HG-SBS1-C-MH1-RTD-4 | | | | | NT | | | |
| AITR1392-8HG-SBS1-C-MH2-RTD-1 | 1.510 | 0.2590 | 0.1150 | 0.0096 | 379.00 | FTC | 9.543 | 9.146 |
| AITR1392-8HG-SBS1-C-MH2-RTD-2 | 1.508 | 0.2590 | 0.1190 | 0.0099 | 401.00 | ILS | 9.758 | 9.677 |
| AITR1392-8HG-SBS1-C-MH2-RTD-3 | 1.495 | 0.2590 | 0.1180 | 0.0098 | 397.00 | ILS | 9.742 | 9.580 |
| AITR1392-8HG-SBS1-C-MH2-RTD-4 | | | | | NT | | | |
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| Minimum | 1.4950 | 0.2523 | 0.1103 | 0.0092 | 349.00 | | 9.157 | 8.521 |
| Maximum | 1.5900 | 0.2590 | 0.1210 | 0.0101 | 429.00 | | 10.497 | 10.392 |
| Average | 1.5444 | 0.2567 | 0.1169 | 0.0097 | 383.50 | | 9.575 | 9.334 |
| Standard Deviation | 0.0413 | 0.0020 | 0.0026 | 0.0002 | 22.77 | | 0.412 | 0.513 |
| Coefficient of Variation (%) | 2.67 | 0.76 | 2.27 | 2.27 | 5.94 | | 4.31 | 5.49 |
| No. Specimens | 18 | 18 | 18 | 18 | 18 | | 18 | 18 |

**Notes:**
NT=Not Tested
NR=No Result
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | |
|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | SBS1 | MH | ETW | | | |

**Test Group: AITR1392-8HG-SBS1-MH-ETW**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01

Test Type: Quasi Short Beam Shear Condition: ETW #Plies: 12

Test Method: MP1116 (ASTMD2344) Span (4t): 0.48

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized |
| AITR1392-8HG-SBS1-A-MH1-ETW-1 | 1.508 | 0.2520 | 0.1197 | 0.0100 | 247.00 | FTC | 6.141 | 6.126 |
| AITR1392-8HG-SBS1-A-MH1-ETW-2 | 1.509 | 0.2524 | 0.1211 | 0.0101 | 258.00 | FTC | 6.331 | 6.389 |
| AITR1392-8HG-SBS1-A-MH1-ETW-3 | 1.508 | 0.2529 | 0.1190 | 0.0099 | 247.00 | FTC | 6.155 | 6.104 |
| AITR1392-8HG-SBS1-A-MH1-ETW-4 | 1.509 | 0.2518 | 0.1191 | 0.0099 | NT | | | |
| AITR1392-8HG-SBS1-A-MH2-ETW-1 | 1.496 | 0.2509 | 0.1183 | 0.0099 | 220.00 | ILS | 5.559 | 5.480 |
| AITR1392-8HG-SBS1-A-MH2-ETW-2 | 1.508 | 0.2506 | 0.1214 | 0.0101 | 221.00 | ILS | 5.448 | 5.512 |
| AITR1392-8HG-SBS1-A-MH2-ETW-3 | 1.511 | 0.2516 | 0.1202 | 0.0100 | 216.00 | ILS | 5.357 | 5.366 |
| AITR1392-8HG-SBS1-A-MH2-ETW-4 | 1.497 | 0.2513 | 0.1218 | 0.0102 | NT | | | |
| Minimum | 1.4960 | 0.2506 | 0.1183 | 0.0099 | 216.00 | | 5.357 | 5.366 |
| Maximum | 1.5110 | 0.2529 | 0.1218 | 0.0102 | 258.00 | | 6.331 | 6.389 |
| Average | 1.5058 | 0.2517 | 0.1201 | 0.0100 | 234.83 | | 5.832 | 5.829 |
| Standard Deviation | 0.0058 | 0.0008 | 0.0013 | 0.0001 | 17.88 | | 0.423 | 0.428 |
| Coefficient of Variation (%) | 0.39 | 0.30 | 1.05 | 1.05 | 7.61 | | 7.26 | 7.33 |
| No. Specimens | 8 | 8 | 8 | 8 | 6 | | 6 | 6 |

**Notes:**
NT=Not Tested
NR=No Result
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | |
|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | SBS1 | MH | ETW2 | | | |

**Test Group: AITR1392-8HG-SBS1-MH-ETW2**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: Cured Ply Thickness: 0.01
Test Type: Quasi Short Beam Shear Condition: ETW2 #Plies: 12
Test Method: MP1116 (ASTMD2344) Span (4t): 0.47

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in. | Width, in. | Thickness, in. | Cured Ply Thickness: | Ultimate Load, lb. | Failure Mode | Ultimate Strength, ksi | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Measured | Normalized |
| AITR1392-8HG-SBS1-A-MH1-ETW2-1 | 1.506 | 0.2531 | 0.1195 | 0.0100 | 200.90 | FTC | 4.982 | 4.961 |
| AITR1392-8HG-SBS1-A-MH1-ETW2-2 | 1.505 | 0.2508 | 0.1201 | 0.0100 | 205.00 | FTC | 5.104 | 5.109 |
| AITR1392-8HG-SBS1-A-MH1-ETW2-3 | 1.507 | 0.2516 | 0.1202 | 0.0100 | 205.80 | FTC | 5.104 | 5.112 |
| AITR1392-8HG-SBS1-A-MH1-ETW2-4 | | | | | NT | | | |
| AITR1392-8HG-SBS1-A-MH2-ETW2-1 | 1.509 | 0.2518 | 0.1188 | 0.0099 | 180.00 | ILS | 4.513 | 4.468 |
| AITR1392-8HG-SBS1-A-MH2-ETW2-2 | | | | | NT | | | |
| AITR1392-8HG-SBS1-A-MH2-ETW2-3 | 1.501 | 0.2519 | 0.1193 | 0.0099 | 176.20 | ILS | 4.397 | 4.372 |
| AITR1392-8HG-SBS1-A-MH2-ETW2-4 | 1.501 | 0.2513 | 0.1179 | 0.0098 | 172.50 | ILS | 4.367 | 4.290 |
| AITR1392-8HG-SBS1-B-MH1-ETW2-1 | 1.587 | 0.2565 | 0.1203 | 0.0100 | 189.50 | ILS | 4.606 | 4.617 |
| AITR1392-8HG-SBS1-B-MH1-ETW2-2 | 1.589 | 0.2563 | 0.1206 | 0.0101 | 186.20 | ILS | 4.518 | 4.541 |
| AITR1392-8HG-SBS1-B-MH1-ETW2-3 | 1.585 | 0.2562 | 0.1197 | 0.0100 | 182.10 | ILS | 4.453 | 4.442 |
| AITR1392-8HG-SBS1-B-MH1-ETW2-4 | | | | | NT | | | |
| AITR1392-8HG-SBS1-B-MH2-ETW2-1 | 1.566 | 0.2568 | 0.1088 | 0.0091 | 161.50 | ILS | 4.335 | 3.931 |
| AITR1392-8HG-SBS1-B-MH2-ETW2-2 | 1.585 | 0.2562 | 0.1151 | 0.0096 | 170.30 | ILS | 4.331 | 4.154 |
| AITR1392-8HG-SBS1-B-MH2-ETW2-3 | 1.584 | 0.2554 | 0.1160 | 0.0097 | 174.60 | ILS | 4.420 | 4.273 |
| AITR1392-8HG-SBS1-B-MH2-ETW2-4 | | | | | NT | | | |
| AITR1392-8HG-SBS1-C-MH1-ETW2-1 | 1.590 | 0.2541 | 0.1145 | 0.0095 | 180.70 | ILS | 4.658 | 4.445 |
| AITR1392-8HG-SBS1-C-MH1-ETW2-2 | 1.586 | 0.2541 | 0.1168 | 0.0097 | 183.50 | ILS | 4.637 | 4.513 |
| AITR1392-8HG-SBS1-C-MH1-ETW2-3 | 1.586 | 0.2535 | 0.1148 | 0.0096 | 177.90 | ILS | 4.585 | 4.386 |
| AITR1392-8HG-SBS1-C-MH1-ETW2-4 | | | | | NT | | | |
| AITR1392-8HG-SBS1-C-MH2-ETW2-1 | 1.583 | 0.2561 | 0.1183 | 0.0099 | 187.10 | ILS | 4.632 | 4.566 |
| AITR1392-8HG-SBS1-C-MH2-ETW2-2 | 1.585 | 0.2564 | 0.1178 | 0.0098 | 189.20 | ILS | 4.698 | 4.612 |
| AITR1392-8HG-SBS1-C-MH2-ETW2-3 | 1.588 | 0.2561 | 0.1174 | 0.0098 | 188.90 | ILS | 4.712 | 4.610 |
| AITR1392-8HG-SBS1-C-MH2-ETW2-4 | | | | | NT | | | |
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| Minimum | 1.5010 | 0.2508 | 0.1088 | 0.0091 | 161.50 | | 4.331 | 3.931 |
| Maximum | 1.5900 | 0.2568 | 0.1206 | 0.0101 | 205.80 | | 5.104 | 5.112 |
| Average | 1.5579 | 0.2543 | 0.1176 | 0.0098 | 183.99 | | 4.614 | 4.522 |
| Standard Deviation | 0.0390 | 0.0021 | 0.0029 | 0.0002 | 11.73 | | 0.241 | 0.304 |
| Coefficient of Variation (%) | 2.50 | 0.84 | 2.50 | 2.50 | 6.38 | | 5.22 | 6.72 |
| No. Specimens | 18 | 18 | 18 | 18 | 18 | | 18 | 18 |

**Notes:**
NT=Not Tested
NR=No Result
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | OHT1 | MH | CTD | | | | |

**Test Group: AITR1392-8HG-OHT1-MH-CTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01

Test Type: Open-Hole Tension Layup 1 Condition: CTD #Plies: 12

Test Method: MP1117 (ASTMD5766)

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in | Width, in | Thickness, in | Cured Ply Thickness: | Diameter | Width/ Diameter | Diameter/ Thickness | Ultimate Load, lb | Ultimate Strength, ksi | Failure Mode | Normalized Ultimate Strength, |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AITR1392-8HG-OHT1-A-MH1-CTD-1 | 12.0000 | 1.5070 | 0.1130 | 0.0094 | 0.2481 | 6.0742 | 2.1956 | 6106.19 | 35.86 | LGM | 33.77 |
| AITR1392-8HG-OHT1-A-MH1-CTD-2 | 12.0000 | 1.5070 | 0.1140 | 0.0095 | 0.2481 | 6.0742 | 2.1763 | 5994.85 | 34.89 | LGM | 33.15 |
| AITR1392-8HG-OHT1-A-MH1-CTD-3 | 12.0000 | 1.5070 | 0.1130 | 0.0094 | 0.2473 | 6.0938 | 2.1885 | 5965.63 | 35.03 | LGM | 32.99 |
| AITR1392-8HG-OHT1-A-MH1-CTD-4 | 12.0000 | | | | | | | NT | | | |
| AITR1392-8HG-OHT1-A-MH2-CTD-1 | 12.0000 | 1.5080 | 0.1190 | 0.0099 | 0.2470 | 6.1053 | 2.0756 | 6147.09 | 34.25 | LGM | 33.97 |
| AITR1392-8HG-OHT1-A-MH2-CTD-2 | 12.0000 | 1.5100 | 0.1170 | 0.0098 | 0.2483 | 6.0814 | 2.1222 | 5909.74 | 33.45 | LGM | 32.61 |
| AITR1392-8HG-OHT1-A-MH2-CTD-3 | 12.0000 | 1.5080 | 0.1190 | 0.0099 | 0.2470 | 6.1053 | 2.0756 | 5805.29 | 32.35 | LGM | 32.08 |
| AITR1392-8HG-OHT1-A-MH2-CTD-4 | 12.0000 | | | | | | | NT | | | |
| AITR1392-8HG-OHT1-B-MH1-CTD-1 | 12.0000 | 1.5090 | 0.1220 | 0.0102 | 0.2471 | 6.1068 | 2.0254 | 6049.03 | 32.86 | LGM | 33.41 |
| AITR1392-8HG-OHT1-B-MH1-CTD-2 | 12.0000 | 1.5070 | 0.1220 | 0.0102 | 0.2471 | 6.0987 | 2.0254 | 5917.20 | 32.18 | LGM | 32.72 |
| AITR1392-8HG-OHT1-B-MH1-CTD-3 | 12.0000 | 1.5080 | 0.1210 | 0.0101 | 0.2470 | 6.1053 | 2.0413 | 6104.80 | 33.46 | LGM | 33.74 |
| AITR1392-8HG-OHT1-B-MH1-CTD-4 | 12.0000 | | | | | | | NT | | | |
| AITR1392-8HG-OHT1-B-MH2-CTD-1 | 12.0000 | 1.5070 | 0.1180 | 0.0098 | 0.2470 | 6.1012 | 2.0932 | 5925.19 | 33.32 | LGM | 32.76 |
| AITR1392-8HG-OHT1-B-MH2-CTD-2 | 12.0000 | 1.5080 | 0.1180 | 0.0098 | 0.2480 | 6.0806 | 2.1017 | 5913.24 | 33.23 | LGM | 32.68 |
| AITR1392-8HG-OHT1-B-MH2-CTD-3 | 12.0000 | 1.5070 | 0.1210 | 0.0101 | 0.2472 | 6.0963 | 2.0430 | 6006.91 | 32.94 | LGM | 33.22 |
| AITR1392-8HG-OHT1-B-MH2-CTD-4 | 12.0000 | | | | | | | NT | | | |
| AITR1392-8HG-OHT1-C-MH1-CTD-1 | 12.0000 | 1.5040 | 0.1210 | 0.0101 | 0.2470 | 6.0891 | 2.0413 | 5918.85 | 32.52 | LGM | 32.80 |
| AITR1392-8HG-OHT1-C-MH1-CTD-2 | 12.0000 | 1.5040 | 0.1140 | 0.0095 | 0.2470 | 6.0891 | 2.1667 | 5999.30 | 34.99 | LGM | 33.24 |
| AITR1392-8HG-OHT1-C-MH1-CTD-3 | 12.0000 | 1.5040 | 0.1190 | 0.0099 | 0.2478 | 6.0694 | 2.0824 | 6141.80 | 34.32 | LGM | 34.03 |
| AITR1392-8HG-OHT1-C-MH1-CTD-4 | 12.0000 | | | | | | | NT | | | |
| AITR1392-8HG-OHT1-C-MH2-CTD-1 | 12.0000 | 1.5080 | 0.1220 | 0.0102 | 0.2471 | 6.1028 | 2.0254 | 6102.96 | 33.17 | LGM | 33.73 |
| AITR1392-8HG-OHT1-C-MH2-CTD-2 | 12.0000 | 1.5080 | 0.1190 | 0.0099 | 0.2472 | 6.1003 | 2.0773 | 6032.70 | 33.62 | LGM | 33.34 |
| AITR1392-8HG-OHT1-C-MH2-CTD-3 | 12.0000 | 1.5070 | 0.1190 | 0.0099 | 0.2472 | 6.0963 | 2.0773 | 5958.84 | 33.23 | LGM | 32.95 |
| AITR1392-8HG-OHT1-C-MH2-CTD-4 | 12.0000 | | | | | | | NT | | | |
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| Minimum | 12.0000 | 1.5040 | 0.1130 | 0.0094 | 0.2470 | 6.0694 | 2.0254 | 5805.2940 | 32.1842 | | 32.0805 |
| Maximum | 12.0000 | 1.5100 | 0.1220 | 0.0102 | 0.2483 | 6.1068 | 2.1956 | 6147.0860 | 35.8574 | | 34.0304 |
| Average | 12.0000 | 1.5071 | 0.1184 | 0.0099 | 0.2474 | 6.0928 | 2.0908 | 5999.9777 | 33.6489 | | 33.1760 |
| Standard Deviation | 0.0000 | 0.0016 | 0.0031 | 0.0003 | 0.0005 | 0.0121 | 0.0572 | 95.0696 | 1.0273 | | 0.5302 |
| Coefficient of Variation (%) | 0.00 | 0.11 | 2.59 | 2.59 | 0.19 | 0.20 | 2.74 | 1.58 | 3.05 | | 1.60 |
| No. Specimens | 24 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | | 18 |

**Notes:**
NT=Not Tested
NR=No Result
NA=Not Applicable
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | OHT1 | MH | RTD | | | | |

**Test Group: AITR1392-8HG-OHT1-MH-RTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01

Test Type: Open-Hole Tension Layup 1 Condition: RTD #Plies: 12

Test Method: MP1117 (ASTMD5766)

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in | Width, in | Thickness, in | Cured Ply Thickness: | Diameter | Width/ Diameter | Diameter/ Thickness | Ultimate Load, lb | Ultimate Strength, ksi | Failure Mode | **Normalized** Ultimate Strength, |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AITR1392-8HG-OHT1-A-MH1-RTD-1 | 12.0000 | 1.5040 | 0.1180 | 0.0098 | 0.2470 | 6.0891 | 2.0932 | 4736.25 | 26.69 | LGM | 26.24 |
| AITR1392-8HG-OHT1-A-MH1-RTD-2 | 12.0000 | 1.5050 | 0.1150 | 0.0096 | 0.2483 | 6.0612 | 2.1591 | 4663.80 | 26.95 | LGM | 25.82 |
| AITR1392-8HG-OHT1-A-MH1-RTD-3 | 12.0000 | 1.5060 | 0.1190 | 0.0099 | 0.2472 | 6.0922 | 2.0773 | 4744.47 | 26.47 | LGM | 26.25 |
| AITR1392-8HG-OHT1-A-MH1-RTD-4 | 12.0000 | 1.5060 | 0.1190 | 0.0099 | 0.2481 | 6.0701 | 2.0849 | 4782.22 | 26.68 | LGM | 26.46 |
| AITR1392-8HG-OHT1-A-MH2-RTD-1 | 12.0000 | 1.5040 | 0.1180 | 0.0098 | 0.2472 | 6.0841 | 2.0949 | 4707.16 | 26.52 | LGM | 26.08 |
| AITR1392-8HG-OHT1-A-MH2-RTD-2 | 12.0000 | 1.5050 | 0.1180 | 0.0098 | 0.2483 | 6.0612 | 2.1042 | 4703.07 | 26.48 | LGM | 26.04 |
| AITR1392-8HG-OHT1-A-MH2-RTD-3 | 12.0000 | 1.5040 | 0.1220 | 0.0102 | 0.2484 | 6.0548 | 2.0361 | 4632.37 | 25.25 | LGM | 25.67 |
| AITR1392-8HG-OHT1-A-MH2-RTD-4 | 12.0000 | 1.5050 | 0.1140 | 0.0095 | 0.2475 | 6.0808 | 2.1711 | 4784.86 | 27.89 | LGM | 26.49 |
| AITR1392-8HG-OHT1-B-MH1-RTD-1 | 12.0000 | 1.5060 | 0.1190 | 0.0099 | 0.2475 | 6.0848 | 2.0798 | 4713.35 | 26.30 | LGM | 26.08 |
| AITR1392-8HG-OHT1-B-MH1-RTD-2 | 12.0000 | 1.5050 | 0.1200 | 0.0100 | 0.2471 | 6.0907 | 2.0592 | 4738.68 | 26.24 | LGM | 26.24 |
| AITR1392-8HG-OHT1-B-MH1-RTD-3 | 12.0000 | 1.5050 | 0.1180 | 0.0098 | 0.2470 | 6.0931 | 2.0932 | 4787.78 | 26.96 | LGM | 26.51 |
| AITR1392-8HG-OHT1-B-MH1-RTD-4 | 12.0000 | | | | | | | NT | | | |
| AITR1392-8HG-OHT1-B-MH2-RTD-1 | 12.0000 | 1.5050 | 0.1200 | 0.0100 | 0.2472 | 6.0882 | 2.0600 | 4724.82 | 26.16 | LGM | 26.16 |
| AITR1392-8HG-OHT1-B-MH2-RTD-2 | 12.0000 | 1.5060 | 0.1210 | 0.0101 | 0.2472 | 6.0922 | 2.0430 | 4566.32 | 25.06 | LGM | 25.27 |
| AITR1392-8HG-OHT1-B-MH2-RTD-3 | 12.0000 | 1.5050 | 0.1200 | 0.0100 | 0.2473 | 6.0857 | 2.0608 | 4762.11 | 26.37 | LGM | 26.37 |
| AITR1392-8HG-OHT1-B-MH2-RTD-4 | 12.0000 | | | | | | | NT | | | |
| AITR1392-8HG-OHT1-C-MH1-RTD-1 | 12.0000 | 1.5040 | 0.1170 | 0.0098 | 0.2475 | 6.0768 | 2.1154 | 4665.88 | 26.52 | LGM | 25.85 |
| AITR1392-8HG-OHT1-C-MH1-RTD-2 | 12.0000 | 1.5020 | 0.1160 | 0.0097 | 0.2471 | 6.0785 | 2.1302 | 4550.75 | 26.12 | LGM | 25.25 |
| AITR1392-8HG-OHT1-C-MH1-RTD-3 | 12.0000 | 1.5010 | 0.1170 | 0.0098 | 0.2470 | 6.0769 | 2.1111 | 4660.55 | 26.54 | LGM | 25.87 |
| AITR1392-8HG-OHT1-C-MH1-RTD-4 | 12.0000 | | | | | | | NT | | | |
| AITR1392-8HG-OHT1-C-MH2-RTD-1 | 12.0000 | 1.5060 | 0.1170 | 0.0098 | 0.2472 | 6.0922 | 2.1128 | 4808.39 | 27.29 | LGM | 26.61 |
| AITR1392-8HG-OHT1-C-MH2-RTD-2 | 12.0000 | 1.5060 | 0.1160 | 0.0097 | 0.2470 | 6.0972 | 2.1293 | 4773.55 | 27.32 | LGM | 26.41 |
| AITR1392-8HG-OHT1-C-MH2-RTD-3 | 12.0000 | 1.5060 | 0.1170 | 0.0098 | 0.2472 | 6.0922 | 2.1128 | 4808.07 | 27.29 | LGM | 26.61 |
| AITR1392-8HG-OHT1-C-MH2-RTD-4 | 12.0000 | | | | | | | NT | | | |
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| Minimum | 12.0000 | 1.5010 | 0.1140 | 0.0095 | 0.2470 | 6.0548 | 2.0361 | 4550.7450 | 25.0585 | | 25.2483 |
| Maximum | 12.0000 | 1.5060 | 0.1220 | 0.0102 | 0.2484 | 6.0972 | 2.1711 | 4808.3880 | 27.8887 | | 26.6068 |
| Average | 12.0000 | 1.5048 | 0.1181 | 0.0098 | 0.2474 | 6.0821 | 2.0964 | 4715.7210 | 26.5547 | | 26.1147 |
| Standard Deviation | 0.0000 | 0.0014 | 0.0020 | 0.0002 | 0.0005 | 0.0121 | 0.0357 | 73.9174 | 0.6613 | | 0.3973 |
| Coefficient of Variation (%) | 0.00 | 0.09 | 1.70 | 1.70 | 0.19 | 0.20 | 1.70 | 1.57 | 2.49 | | 1.52 |
| No. Specimens | 24 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | | 20 |

**Notes:**
NT=Not Tested
NR=No Result
NA=Not Applicable
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | OHT1 | MH | ETW | | | | |

**Test Group: AITR1392-8HG-OHT1-MH-ETW**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01

Test Type: Open-Hole Tension Layup 1 Condition: ETW #Plies: 12

Test Method: MP1117 (ASTMD5766)

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in | Width, in | Thickness, in | Cured Ply Thickness: | Diameter | Width/ Diameter | Diameter/ Thickness | Ultimate Load, lb | Ultimate Strength, ksi | Failure Mode | **Normalized** Ultimate Strength, |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AITR1392-8HG-OHT1-A-MH1-ETW-1 | 12.0080 | 1.5060 | 0.1130 | 0.0094 | 0.2480 | 6.0726 | 2.1947 | 3212.00 | 18.87 | LGM | 17.77 |
| AITR1392-8HG-OHT1-A-MH1-ETW-2 | 12.0090 | 1.5060 | 0.1160 | 0.0097 | 0.2480 | 6.0726 | 2.1379 | 3207.00 | 18.36 | LGM | 17.75 |
| AITR1392-8HG-OHT1-A-MH1-ETW-3 | 12.0080 | 1.5060 | 0.1170 | 0.0098 | 0.2480 | 6.0726 | 2.1197 | 3227.00 | 18.31 | LGM | 17.86 |
| AITR1392-8HG-OHT1-A-MH1-ETW-4 | 12.0050 | | | | | | | NT | | | |
| AITR1392-8HG-OHT1-A-MH2-ETW-1 | 12.0090 | 1.5050 | 0.1200 | 0.0100 | 0.2480 | 6.0685 | 2.0667 | 3263.00 | 18.07 | LGM | 18.07 |
| AITR1392-8HG-OHT1-A-MH2-ETW-2 | 12.0020 | 1.5050 | 0.1160 | 0.0097 | 0.2482 | 6.0637 | 2.1397 | 3248.00 | 18.60 | LGM | 17.98 |
| AITR1392-8HG-OHT1-A-MH2-ETW-3 | 12.0070 | 1.5040 | 0.1200 | 0.0100 | 0.2481 | 6.0621 | 2.0675 | 3266.00 | 18.10 | LGM | 18.10 |
| AITR1392-8HG-OHT1-A-MH2-ETW-4 | 12.0030 | | | | | | | NT | | | |
| Minimum | 12.0020 | 1.5040 | 0.1130 | 0.0094 | 0.2480 | 6.0621 | 2.0667 | 3207.0000 | 18.0676 | | 17.7457 |
| Maximum | 12.0090 | 1.5060 | 0.1200 | 0.0100 | 0.2482 | 6.0726 | 2.1947 | 3266.0000 | 18.8744 | | 18.0962 |
| Average | 12.0064 | 1.5053 | 0.1170 | 0.0098 | 0.2481 | 6.0687 | 2.1210 | 3237.1667 | 18.3858 | | 17.9206 |
| Standard Deviation | 0.0027 | 0.0008 | 0.0027 | 0.0002 | 0.0001 | 0.0048 | 0.0487 | 25.5454 | 0.3091 | | 0.1503 |
| Coefficient of Variation (%) | 0.02 | 0.05 | 2.29 | 2.29 | 0.03 | 0.08 | 2.30 | 0.79 | 1.68 | | 0.84 |
| No. Specimens | 8 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | 6 |

**Notes:**
NT=Not Tested
NR=No Result
NA=Not Applicable
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | OHT1 | MH | ETW2 | | | | |

**Test Group: AITR1392-8HG-OHT1-MH-ETW2**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01

Test Type: Open-Hole Tension Layup 1 Condition: ETW2 #Plies: 12

Test Method: MP1117 (ASTMD5766)

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in | Width, in | Thickness, in | Cured Ply Thickness: | Diameter | Width/ Diameter | Diameter/ Thickness | Ultimate Load, lb | Ultimate Strength, ksi | Failure Mode | Normalized Ultimate Strength, |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AITR1392-8HG-OHT1-A-MH1-ETW2-1 | 12.0010 | 1.5060 | 0.1145 | 0.0095 | 0.2481 | 6.0701 | 2.1668 | 3044.00 | 17.65 | LGM | 16.84 |
| AITR1392-8HG-OHT1-A-MH1-ETW2-2 | 12.0070 | 1.5060 | 0.1176 | 0.0098 | 0.2480 | 6.0726 | 2.1088 | 3092.00 | 17.46 | LGM | 17.11 |
| AITR1392-8HG-OHT1-A-MH1-ETW2-3 | 12.0100 | 1.5060 | 0.1178 | 0.0098 | 0.2481 | 6.0701 | 2.1061 | 3096.00 | 17.45 | LGM | 17.13 |
| AITR1392-8HG-OHT1-A-MH1-ETW2-4 | 12.0100 | 1.5060 | 0.1178 | 0.0098 | 0.2470 | 6.0972 | 2.0968 | NT | | | |
| AITR1392-8HG-OHT1-A-MH2-ETW2-1 | 12.0100 | 1.5060 | 0.1161 | 0.0097 | 0.2480 | 6.0726 | 2.1361 | 3069.00 | 17.55 | LGM | 16.98 |
| AITR1392-8HG-OHT1-A-MH2-ETW2-2 | 12.0080 | 1.5040 | 0.1203 | 0.0100 | 0.2479 | 6.0670 | 2.0607 | 3092.00 | 17.09 | LGM | 17.13 |
| AITR1392-8HG-OHT1-A-MH2-ETW2-3 | 12.0080 | 1.5050 | 0.1205 | 0.0100 | 0.2483 | 6.0612 | 2.0606 | 3119.00 | 17.20 | LGM | 17.27 |
| AITR1392-8HG-OHT1-A-MH2-ETW2-4 | | | | | | | | NT | | | |
| AITR1392-8HG-OHT1-B-MH1-ETW2-1 | 12.0040 | 1.5060 | 0.1173 | 0.0098 | 0.2479 | 6.0750 | 2.1134 | 3057.00 | 17.31 | LGM | 16.92 |
| AITR1392-8HG-OHT1-B-MH1-ETW2-2 | 12.0080 | 1.5060 | 0.1103 | 0.0092 | 0.2476 | 6.0824 | 2.2448 | 3006.00 | 18.10 | LGM | 16.63 |
| AITR1392-8HG-OHT1-B-MH1-ETW2-3 | 12.0070 | 1.5060 | 0.1193 | 0.0099 | 0.2480 | 6.0726 | 2.0788 | 3033.00 | 16.88 | LGM | 16.78 |
| AITR1392-8HG-OHT1-B-MH1-ETW2-4 | | | | | | | | NT | | | |
| AITR1392-8HG-OHT1-B-MH2-ETW2-1 | 12.0020 | 1.5050 | 0.1199 | 0.0100 | 0.2478 | 6.0734 | 2.0667 | 3189.00 | 17.67 | LGM | 17.66 |
| AITR1392-8HG-OHT1-B-MH2-ETW2-2 | 12.0040 | 1.5050 | 0.1157 | 0.0096 | 0.2482 | 6.0637 | 2.1452 | 3198.00 | 18.37 | LGM | 17.71 |
| AITR1392-8HG-OHT1-B-MH2-ETW2-3 | 12.0060 | 1.5060 | 0.1212 | 0.0101 | 0.2481 | 6.0701 | 2.0470 | 3027.00 | 16.58 | LGM | 16.75 |
| AITR1392-8HG-OHT1-B-MH2-ETW2-4 | | | | | | | | NT | | | |
| AITR1392-8HG-OHT1-C-MH1-ETW2-1 | 12.0050 | 1.5020 | 0.1183 | 0.0099 | 0.2477 | 6.0638 | 2.0938 | 3056.00 | 17.20 | LGM | 16.96 |
| AITR1392-8HG-OHT1-C-MH1-ETW2-2 | 12.0030 | 1.5020 | 0.1192 | 0.0099 | 0.2475 | 6.0687 | 2.0763 | 3100.00 | 17.31 | LGM | 17.20 |
| AITR1392-8HG-OHT1-C-MH1-ETW2-3 | 12.0060 | 1.5010 | 0.1188 | 0.0099 | 0.2486 | 6.0378 | 2.0926 | 3070.00 | 17.22 | LGM | 17.04 |
| AITR1392-8HG-OHT1-C-MH1-ETW2-4 | | | | | | | | NT | | | |
| AITR1392-8HG-OHT1-C-MH2-ETW2-1 | 12.0100 | 1.5060 | 0.1206 | 0.0101 | 0.2477 | 6.0799 | 2.0539 | 3096.00 | 17.05 | LGM | 17.13 |
| AITR1392-8HG-OHT1-C-MH2-ETW2-2 | 12.0030 | 1.5070 | 0.1161 | 0.0097 | 0.2475 | 6.0889 | 2.1318 | 3076.00 | 17.58 | LGM | 17.01 |
| AITR1392-8HG-OHT1-C-MH2-ETW2-3 | 12.0040 | 1.5060 | 0.1213 | 0.0101 | 0.2486 | 6.0579 | 2.0495 | 3063.00 | 16.77 | LGM | 16.95 |
| AITR1392-8HG-OHT1-C-MH2-ETW2-4 | | | | | | | | NT | | | |
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| Minimum | 12.0010 | 1.5010 | 0.1103 | 0.0092 | 0.2470 | 6.0378 | 2.0470 | 3006.0000 | 16.5838 | | 16.6335 |
| Maximum | 12.0100 | 1.5070 | 0.1213 | 0.0101 | 0.2486 | 6.0972 | 2.2448 | 3198.0000 | 18.3657 | | 17.7076 |
| Average | 12.0061 | 1.5051 | 0.1180 | 0.0098 | 0.2479 | 6.0708 | 2.1016 | 3082.3889 | 17.3573 | | 17.0669 |
| Standard Deviation | 0.0029 | 0.0017 | 0.0027 | 0.0002 | 0.0004 | 0.0123 | 0.0488 | 49.6128 | 0.4388 | | 0.2778 |
| Coefficient of Variation (%) | 0.02 | 0.11 | 2.29 | 2.29 | 0.16 | 0.20 | 2.32 | 1.61 | 2.53 | | 1.63 |
| No. Specimens | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 18 | 18 | | 18 |

**Notes:**
NT=Not Tested
NR=No Result
NA=Not Applicable
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | OHT2 | MH | CTD | | | | |

**Test Group: AITR1392-8HG-OHT2-MH-CTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01

Test Type: Open-Hole Tension Layup 2 Condition: CTD #Plies: 15

Test Method: MP1117 (ASTMD5766)

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in | Width, in | Thickness, in | Cured Ply Thickness: | Diameter | Width/ Diameter | Diameter/ Thickness | Ultimate Load, lb | Ultimate Strength, ksi | Failure Mode | **Normalized** Ultimate Strength, |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AITR1392-8HG-OHT2-A-MH1-CTD-1 | 12.0000 | 1.5100 | 0.1480 | 0.0099 | 0.2474 | 6.1035 | 1.6716 | 7305.09 | 32.69 | AGM | 32.25 |
| AITR1392-8HG-OHT2-A-MH1-CTD-2 | 12.0000 | 1.5110 | 0.1470 | 0.0098 | 0.2485 | 6.0805 | 1.6905 | 7294.02 | 32.84 | AGM | 32.18 |
| AITR1392-8HG-OHT2-A-MH1-CTD-3 | 12.0000 | 1.5080 | 0.1500 | 0.0100 | 0.2487 | 6.0635 | 1.6580 | 7350.03 | 32.49 | AGM | 32.49 |
| AITR1392-8HG-OHT2-A-MH1-CTD-4 | | | | | | | | NT | | | |
| AITR1392-8HG-OHT2-A-MH2-CTD-1 | 12.0000 | 1.5110 | 0.1460 | 0.0097 | 0.2472 | 6.1125 | 1.6932 | 7440.77 | 33.73 | AGM | 32.83 |
| AITR1392-8HG-OHT2-A-MH2-CTD-2 | 12.0000 | 1.5090 | 0.1480 | 0.0099 | 0.2471 | 6.1068 | 1.6696 | 7360.05 | 32.96 | AGM | 32.52 |
| AITR1392-8HG-OHT2-A-MH2-CTD-3 | 12.0000 | 1.5080 | 0.1500 | 0.0100 | 0.2486 | 6.0660 | 1.6573 | 7465.65 | 33.00 | AGM | 33.00 |
| AITR1392-8HG-OHT2-A-MH2-CTD-4 | | | | | | | | NT | | | |
| AITR1392-8HG-OHT2-B-MH1-CTD-1 | 12.0000 | 1.5070 | 0.1440 | 0.0096 | 0.2470 | 6.1012 | 1.7153 | 7895.86 | 36.39 | AGM | 34.93 |
| AITR1392-8HG-OHT2-B-MH1-CTD-2 | 12.0000 | 1.5090 | 0.1450 | 0.0097 | 0.2476 | 6.0945 | 1.7076 | 7565.06 | 34.57 | AGM | 33.42 |
| AITR1392-8HG-OHT2-B-MH1-CTD-3 | 12.0000 | 1.5050 | 0.1470 | 0.0098 | 0.2474 | 6.0833 | 1.6830 | 7411.60 | 33.50 | AGM | 32.83 |
| AITR1392-8HG-OHT2-B-MH1-CTD-4 | | | | | | | | NT | | | |
| AITR1392-8HG-OHT2-B-MH2-CTD-1 | 12.0000 | 1.5080 | 0.1480 | 0.0099 | 0.2471 | 6.1028 | 1.6696 | 7351.95 | 32.94 | AGM | 32.50 |
| AITR1392-8HG-OHT2-B-MH2-CTD-2 | 12.0000 | 1.5060 | 0.1460 | 0.0097 | 0.2478 | 6.0775 | 1.6973 | 7238.51 | 32.92 | AGM | 32.04 |
| AITR1392-8HG-OHT2-B-MH2-CTD-3 | 12.0000 | 1.5100 | 0.1470 | 0.0098 | 0.2472 | 6.1084 | 1.6816 | 7621.02 | 34.33 | AGM | 33.65 |
| AITR1392-8HG-OHT2-B-MH2-CTD-4 | | | | | | | | NT | | | |
| AITR1392-8HG-OHT2-C-MH1-CTD-1 | 12.0000 | 1.5080 | 0.1470 | 0.0098 | 0.2473 | 6.0979 | 1.6823 | 7202.21 | 32.49 | AGM | 31.84 |
| AITR1392-8HG-OHT2-C-MH1-CTD-2 | 12.0000 | 1.5080 | 0.1400 | 0.0093 | 0.2476 | 6.0905 | 1.7686 | 7516.13 | 35.60 | AGM | 33.23 |
| AITR1392-8HG-OHT2-C-MH1-CTD-3 | 12.0000 | 1.5080 | 0.1430 | 0.0095 | 0.2474 | 6.0954 | 1.7301 | 7284.35 | 33.78 | AGM | 32.20 |
| AITR1392-8HG-OHT2-C-MH1-CTD-4 | | | | | | | | NT | | | |
| AITR1392-8HG-OHT2-C-MH2-CTD-1 | 12.0000 | 1.5070 | 0.1510 | 0.0101 | 0.2483 | 6.0693 | 1.6444 | 7323.43 | 32.18 | AGM | 32.40 |
| AITR1392-8HG-OHT2-C-MH2-CTD-2 | 12.0000 | 1.5100 | 0.1490 | 0.0099 | 0.2478 | 6.0936 | 1.6631 | 7491.33 | 33.30 | AGM | 33.07 |
| AITR1392-8HG-OHT2-C-MH2-CTD-3 | 12.0000 | 1.5100 | 0.1500 | 0.0100 | 0.2486 | 6.0740 | 1.6573 | 7147.24 | 31.56 | AGM | 31.56 |
| AITR1392-8HG-OHT2-C-MH2-CTD-4 | | | | | | | | NT | | | |
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| Minimum | 12.0000 | 1.5050 | 0.1400 | 0.0093 | 0.2470 | 6.0635 | 1.6444 | 7147.2440 | 31.5552 | | 31.5552 |
| Maximum | 12.0000 | 1.5110 | 0.1510 | 0.0101 | 0.2487 | 6.1125 | 1.7686 | 7895.8550 | 36.3851 | | 34.9297 |
| Average | 12.0000 | 1.5085 | 0.1470 | 0.0098 | 0.2477 | 6.0901 | 1.6856 | 7403.5706 | 33.4039 | | 32.7194 |
| Standard Deviation | 0.0000 | 0.0017 | 0.0028 | 0.0002 | 0.0006 | 0.0153 | 0.0304 | 175.6729 | 1.1988 | | 0.7796 |
| Coefficient of Variation (%) | 0.00 | 0.11 | 1.88 | 1.88 | 0.24 | 0.25 | 1.81 | 2.37 | 3.59 | | 2.38 |
| No. Specimens | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | | 18 |

**Notes:**
NT=Not Tested
NR=No Result
NA=Not Applicable
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | OHT2 | MH | ETW2 | | | | |

**Test Group: AITR1392-8HG-OHT2-MH-ETW2**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01

Test Type: Open-Hole Tension Layup 2 Condition: ETW2 #Plies: 15

Test Method: MP1117 (ASTMD5766)

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in | Width, in | Thickness, in | Cured Ply Thickness: | Diameter | Width/ Diameter | Diameter/ Thickness | Ultimate Load, lb | Ultimate Strength, ksi | Failure Mode | **Normalized** Ultimate Strength, |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AITR1392-8HG-OHT2-A-MH1-ETW2-1 | 12.0100 | 1.5070 | 0.1470 | 0.0098 | 0.2480 | 6.0766 | 1.6871 | 3279.38 | 14.80 | AGM | 14.51 |
| AITR1392-8HG-OHT2-A-MH1-ETW2-2 | 12.0100 | 1.5070 | 0.1500 | 0.0100 | 0.2480 | 6.0766 | 1.6533 | 3315.45 | 14.67 | AGM | 14.67 |
| AITR1392-8HG-OHT2-A-MH1-ETW2-3 | 12.0110 | 1.5070 | 0.1490 | 0.0099 | 0.2470 | 6.1012 | 1.6577 | 3398.38 | 15.13 | AGM | 15.03 |
| AITR1392-8HG-OHT2-A-MH1-ETW2-4 | 12.0130 | 1.5070 | 0.1480 | 0.0099 | 0.2470 | 6.1012 | 1.6689 | 3170.02 | 14.21 | AGM | 14.02 |
| AITR1392-8HG-OHT2-A-MH2-ETW2-1 | 12.0080 | 1.5070 | 0.1470 | 0.0098 | 0.2470 | 6.1012 | 1.6803 | 3034.49 | 13.70 | AGM | 13.42 |
| AITR1392-8HG-OHT2-A-MH2-ETW2-2 | 12.0070 | 1.5070 | 0.1480 | 0.0099 | 0.2480 | 6.0766 | 1.6757 | 3142.45 | 14.09 | AGM | 13.90 |
| AITR1392-8HG-OHT2-A-MH2-ETW2-3 | 12.0100 | 1.5070 | 0.1460 | 0.0097 | 0.2470 | 6.1012 | 1.6918 | 3173.39 | 14.42 | AGM | 14.04 |
| AITR1392-8HG-OHT2-A-MH2-ETW2-4 | 12.0110 | 1.5070 | 0.1470 | 0.0098 | 0.2470 | 6.1012 | 1.6803 | NT | | | |
| Minimum | 12.0070 | 1.5070 | 0.1460 | 0.0097 | 0.2470 | 6.0766 | 1.6533 | 3034.4910 | 13.6979 | | 13.4240 |
| Maximum | 12.0130 | 1.5070 | 0.1500 | 0.0100 | 0.2480 | 6.1012 | 1.6918 | 3398.3790 | 15.1346 | | 15.0337 |
| Average | 12.0100 | 1.5070 | 0.1478 | 0.0099 | 0.2474 | 6.0920 | 1.6744 | 3216.2223 | 14.4326 | | 14.2279 |
| Standard Deviation | 0.0019 | 0.0000 | 0.0013 | 0.0001 | 0.0005 | 0.0127 | 0.0136 | 122.1014 | 0.4815 | | 0.5402 |
| Coefficient of Variation (%) | 0.02 | 0.00 | 0.87 | 0.87 | 0.21 | 0.21 | 0.81 | 3.80 | 3.34 | | 3.80 |
| No. Specimens | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 7 | 7 | | 7 |

**Notes:**
NT=Not Tested
NR=No Result
NA=Not Applicable
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | OHT3 | MH | CTD | | | | |

**Test Group: AITR1392-8HG-OHT3-MH-CTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01

Test Type: Open-Hole Tension Layup 3 Condition: CTD #Plies: 15

Test Method: MP1117 (ASTMD5766)

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in | Width, in | Thickness, in | Cured Ply Thickness: | Diameter | Width/ Diameter | Diameter/ Thickness | Ultimate Load, lb | Ultimate Strength, ksi | Failure Mode | Normalized Ultimate Strength, |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AITR1392-8HG-OHT3-A-MH1-CTD-1 | 12.0000 | 1.5080 | 0.1520 | 0.0101 | 0.2488 | 6.0611 | 1.6368 | 8747.96 | 38.16 | LGM | 38.67 |
| AITR1392-8HG-OHT3-A-MH1-CTD-2 | 12.0000 | 1.5070 | 0.1510 | 0.0101 | 0.2477 | 6.0840 | 1.6404 | 8714.25 | 38.29 | LGM | 38.55 |
| AITR1392-8HG-OHT3-A-MH1-CTD-3 | 12.0000 | 1.5100 | 0.1470 | 0.0098 | 0.2476 | 6.0985 | 1.6844 | 8393.15 | 37.81 | LGM | 37.06 |
| AITR1392-8HG-OHT3-A-MH1-CTD-4 | | | | | | | | NT | | | |
| AITR1392-8HG-OHT3-A-MH2-CTD-1 | 12.0000 | 1.5090 | 0.1610 | 0.0107 | 0.2478 | 6.0896 | 1.5391 | 8835.37 | 36.37 | LGM | 39.03 |
| AITR1392-8HG-OHT3-A-MH2-CTD-2 | 12.0000 | 1.5100 | 0.1620 | 0.0108 | 0.2470 | 6.1134 | 1.5247 | 9310.30 | 38.06 | LGM | 41.11 |
| AITR1392-8HG-OHT3-A-MH2-CTD-3 | 12.0000 | 1.5090 | 0.1590 | 0.0106 | 0.2488 | 6.0651 | 1.5648 | 8787.92 | 36.63 | LGM | 38.82 |
| AITR1392-8HG-OHT3-A-MH2-CTD-4 | | | | | | | | NT | | | |
| AITR1392-8HG-OHT3-B-MH1-CTD-1 | 12.0000 | 1.5050 | 0.1440 | 0.0096 | 0.2476 | 6.0784 | 1.7194 | 8764.97 | 40.44 | LGM | 38.83 |
| AITR1392-8HG-OHT3-B-MH1-CTD-2 | 12.0000 | 1.5030 | 0.1520 | 0.0101 | 0.2478 | 6.0654 | 1.6303 | 8158.28 | 35.71 | LGM | 36.19 |
| AITR1392-8HG-OHT3-B-MH1-CTD-3 | 12.0000 | 1.5050 | 0.1470 | 0.0098 | 0.2474 | 6.0833 | 1.6830 | 8282.13 | 37.44 | LGM | 36.69 |
| AITR1392-8HG-OHT3-B-MH1-CTD-4 | | | | | | | | NT | | | |
| AITR1392-8HG-OHT3-B-MH2-CTD-1 | 12.0000 | 1.5070 | 0.1470 | 0.0098 | 0.2483 | 6.0693 | 1.6891 | 9021.77 | 40.72 | LGM | 39.91 |
| AITR1392-8HG-OHT3-B-MH2-CTD-2 | 12.0000 | 1.5090 | 0.1500 | 0.0100 | 0.2476 | 6.0945 | 1.6507 | 8629.61 | 38.13 | LGM | 38.13 |
| AITR1392-8HG-OHT3-B-MH2-CTD-3 | 12.0000 | 1.5080 | 0.1480 | 0.0099 | 0.2484 | 6.0709 | 1.6784 | 8880.00 | 39.79 | LGM | 39.26 |
| AITR1392-8HG-OHT3-B-MH2-CTD-4 | | | | | | | | NT | | | |
| AITR1392-8HG-OHT3-C-MH1-CTD-1 | 12.0000 | 1.5090 | 0.1430 | 0.0095 | 0.2476 | 6.0945 | 1.7315 | 8260.78 | 38.28 | LGM | 36.50 |
| AITR1392-8HG-OHT3-C-MH1-CTD-2 | 12.0000 | 1.5100 | 0.1420 | 0.0095 | 0.2478 | 6.0936 | 1.7451 | 8433.45 | 39.33 | LGM | 37.23 |
| AITR1392-8HG-OHT3-C-MH1-CTD-3 | 12.0000 | 1.5090 | 0.1420 | 0.0095 | 0.2479 | 6.0871 | 1.7458 | 8222.43 | 38.37 | LGM | 36.33 |
| AITR1392-8HG-OHT3-C-MH1-CTD-4 | | | | | | | | NT | | | |
| AITR1392-8HG-OHT3-C-MH2-CTD-1 | 12.0000 | 1.5070 | 0.1470 | 0.0098 | 0.2482 | 6.0717 | 1.6884 | 8602.57 | 38.83 | LGM | 38.06 |
| AITR1392-8HG-OHT3-C-MH2-CTD-2 | 12.0000 | 1.5070 | 0.1410 | 0.0094 | 0.2482 | 6.0717 | 1.7603 | 8364.01 | 39.36 | LGM | 37.00 |
| AITR1392-8HG-OHT3-C-MH2-CTD-3 | 12.0000 | 1.5070 | 0.1470 | 0.0098 | 0.2490 | 6.0522 | 1.6939 | 9507.14 | 42.92 | LGM | 42.06 |
| AITR1392-8HG-OHT3-C-MH2-CTD-4 | | | | | | | | NT | | | |
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| Minimum | 12.0000 | 1.5030 | 0.1410 | 0.0094 | 0.2470 | 6.0522 | 1.5247 | 8158.2800 | 35.7105 | | 36.1866 |
| Maximum | 12.0000 | 1.5100 | 0.1620 | 0.0108 | 0.2490 | 6.1134 | 1.7603 | 9507.1360 | 42.9160 | | 42.0577 |
| Average | 12.0000 | 1.5077 | 0.1490 | 0.0099 | 0.2480 | 6.0802 | 1.6670 | 8662.0055 | 38.5917 | | 38.3003 |
| Standard Deviation | 0.0000 | 0.0019 | 0.0063 | 0.0004 | 0.0005 | 0.0156 | 0.0688 | 371.6628 | 1.7026 | | 1.6355 |
| Coefficient of Variation (%) | 0.00 | 0.13 | 4.24 | 4.24 | 0.21 | 0.26 | 4.13 | 4.29 | 4.41 | | 4.27 |
| No. Specimens | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | | 18 |

**Notes:**
NT=Not Tested
NR=No Result
NA=Not Applicable
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | OHT3 | MH | RTD | | | | |

**Test Group: AITR1392-8HG-OHT3-MH-RTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01

Test Type: Open-Hole Tension Layup 3 Condition: RTD #Plies: 15

Test Method: MP1117 (ASTMD5766)

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in | Width, in | Thickness, in | Cured Ply Thickness: | Diameter | Width/ Diameter | Diameter/ Thickness | Ultimate Load, lb | Ultimate Strength, ksi | Failure Mode | **Normalized** Ultimate Strength, |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AITR1392-8HG-OHT3-A-MH1-RTD-1 | 12.0000 | 1.5070 | 0.1520 | 0.0101 | 0.2493 | 6.0449 | 1.6401 | 6497.42 | 28.37 | LGM | 28.74 |
| AITR1392-8HG-OHT3-A-MH1-RTD-2 | 12.0000 | 1.5010 | 0.1510 | 0.0101 | 0.2491 | 6.0257 | 1.6497 | 6747.56 | 29.77 | LGM | 29.97 |
| AITR1392-8HG-OHT3-A-MH1-RTD-3 | 12.0000 | 1.5080 | 0.1570 | 0.0105 | 0.2492 | 6.0514 | 1.5873 | 6649.40 | 28.09 | LGM | 29.40 |
| AITR1392-8HG-OHT3-A-MH1-RTD-4 | | | | | | | | NT | | | |
| AITR1392-8HG-OHT3-A-MH2-RTD-1 | 12.0000 | 1.5090 | 0.1550 | 0.0103 | 0.2488 | 6.0651 | 1.6052 | 7070.80 | 30.23 | LGM | 31.24 |
| AITR1392-8HG-OHT3-A-MH2-RTD-2 | 12.0000 | 1.5080 | 0.1560 | 0.0104 | 0.2477 | 6.0880 | 1.5878 | 6910.51 | 29.38 | LGM | 30.55 |
| AITR1392-8HG-OHT3-A-MH2-RTD-3 | 12.0000 | 1.5060 | 0.1600 | 0.0107 | 0.2488 | 6.0531 | 1.5550 | 7209.79 | 29.92 | LGM | 31.92 |
| AITR1392-8HG-OHT3-A-MH2-RTD-4 | | | | | | | | NT | | | |
| Minimum | 12.0000 | 1.5010 | 0.1510 | 0.0101 | 0.2477 | 6.0257 | 1.5550 | 6497.4200 | 28.0855 | | 28.7433 |
| Maximum | 12.0000 | 1.5090 | 0.1600 | 0.0107 | 0.2493 | 6.0880 | 1.6497 | 7209.7870 | 30.2307 | | 31.9158 |
| Average | 12.0000 | 1.5065 | 0.1552 | 0.0103 | 0.2488 | 6.0547 | 1.6042 | 6847.5803 | 29.2914 | | 30.3022 |
| Standard Deviation | 0.0000 | 0.0029 | 0.0033 | 0.0002 | 0.0006 | 0.0208 | 0.0356 | 267.1610 | 0.8750 | | 1.1751 |
| Coefficient of Variation (%) | 0.00 | 0.19 | 2.13 | 2.13 | 0.23 | 0.34 | 2.22 | 3.90 | 2.99 | | 3.88 |
| No. Specimens | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | 6 |

**Notes:**
NT=Not Tested
NR=No Result
NA=Not Applicable
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | OHT3 | MH | ETW2 | | | | |

**Test Group: AITR1392-8HG-OHT3-MH-ETW2**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01

Test Type: Open-Hole Tension Layup 3 Condition: ETW2 #Plies: 15

Test Method: MP1117 (ASTMD5766)

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in | Width, in | Thickness, in | Cured Ply Thickness: | Diameter | Width/ Diameter | Diameter/ Thickness | Ultimate Load, lb | Ultimate Strength, ksi | Failure Mode | **Normalized** Ultimate Strength, |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AITR1392-8HG-OHT3-A-MH1-ETW2-1 | 12.0110 | 1.5080 | 0.1540 | 0.0103 | 0.2493 | 6.0489 | 1.6188 | 4495.15 | 19.36 | LGM | 19.87 |
| AITR1392-8HG-OHT3-A-MH1-ETW2-2 | 12.0170 | 1.5080 | 0.1480 | 0.0099 | 0.2490 | 6.0562 | 1.6824 | 4372.76 | 19.59 | LGM | 19.33 |
| AITR1392-8HG-OHT3-A-MH1-ETW2-3 | 12.0100 | 1.5070 | 0.1510 | 0.0101 | 0.2488 | 6.0571 | 1.6477 | 4316.90 | 18.97 | LGM | 19.10 |
| AITR1392-8HG-OHT3-A-MH1-ETW2-4 | 12.0150 | 1.5080 | 0.1460 | 0.0097 | 0.2489 | 6.0587 | 1.7048 | NT | | | |
| AITR1392-8HG-OHT3-A-MH2-ETW2-1 | 12.0140 | 1.5080 | 0.1550 | 0.0103 | 0.2490 | 6.0562 | 1.6065 | 4637.42 | 19.84 | LGM | 20.50 |
| AITR1392-8HG-OHT3-A-MH2-ETW2-2 | 12.0160 | 1.5080 | 0.1550 | 0.0103 | 0.2490 | 6.0562 | 1.6065 | 4580.47 | 19.60 | LGM | 20.25 |
| AITR1392-8HG-OHT3-A-MH2-ETW2-3 | 12.0120 | 1.5070 | 0.1570 | 0.0105 | 0.2488 | 6.0571 | 1.5847 | 4695.55 | 19.85 | LGM | 20.77 |
| AITR1392-8HG-OHT3-A-MH2-ETW2-4 | 12.0080 | 1.5080 | 0.1540 | 0.0103 | 0.2480 | 6.0806 | 1.6104 | NT | | | |
| Minimum | 12.0080 | 1.5070 | 0.1460 | 0.0097 | 0.2480 | 6.0489 | 1.5847 | 4316.8950 | 18.9706 | | 19.0971 |
| Maximum | 12.0170 | 1.5080 | 0.1570 | 0.0105 | 0.2493 | 6.0806 | 1.7048 | 4695.5530 | 19.8460 | | 20.7722 |
| Average | 12.0129 | 1.5078 | 0.1525 | 0.0102 | 0.2489 | 6.0589 | 1.6327 | 4516.3750 | 19.5337 | | 19.9707 |
| Standard Deviation | 0.0031 | 0.0005 | 0.0038 | 0.0003 | 0.0004 | 0.0093 | 0.0419 | 149.4886 | 0.3309 | | 0.6608 |
| Coefficient of Variation (%) | 0.03 | 0.03 | 2.50 | 2.50 | 0.15 | 0.15 | 2.56 | 3.31 | 1.69 | | 3.31 |
| No. Specimens | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 6 | 6 | | 6 |

**Notes:**
NT=Not Tested
NR=No Result
NA=Not Applicable
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | OHC1 | MH | RTD | | | | | | |

**Test Group: AITR1392-8HG-OHC1-MH-RTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01
Test Type: Open-Hole Compression Layup 1 Condition: RTD #Plies: 12
Test Method: MP1119 (ASTMD6484)

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in | Width, in | Thickness, in | Cured Ply Thickness: | Diameter | Hole Edge-Side (f) | Hole Edge-End (g) | Width/ Diameter | Diameter/ Thickness | Ultimate Load, lb | Ultimate Strength, ksi | Failure Mode | Normalized Ultimate Strength, |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AITR1392-8HG-OHC1-A-MH1-RTD-1 | 12.0000 | 1.5100 | 0.1150 | 0.0096 | 0.2470 | 0.6290 | 5.877 | 6.1134 | 2.1478 | 6326.00 | 36.43 | LGM | 34.91 |
| AITR1392-8HG-OHC1-A-MH1-RTD-2 | 12.0000 | 1.5080 | 0.1160 | 0.0097 | 0.2471 | 0.6270 | 5.878 | 6.1028 | 2.1302 | 6206.00 | 35.48 | LGM | 34.29 |
| AITR1392-8HG-OHC1-A-MH1-RTD-3 | 12.0000 | 1.5080 | 0.1140 | 0.0095 | 0.2485 | 0.6300 | 5.876 | 6.0684 | 2.1798 | 6184.00 | 35.97 | LGM | 34.17 |
| AITR1392-8HG-OHC1-A-MH1-RTD-4 | | | | | | | | | | NT | | | |
| AITR1392-8HG-OHC1-A-MH2-RTD-1 | 12.0000 | 1.5080 | 0.1160 | 0.0097 | 0.2477 | 0.6280 | 5.878 | 6.0880 | 2.1353 | 6140.00 | 35.10 | LGM | 33.93 |
| AITR1392-8HG-OHC1-A-MH2-RTD-2 | 12.0000 | 1.5080 | 0.1160 | 0.0097 | 0.2471 | 0.6280 | 5.878 | 6.1028 | 2.1302 | 6203.00 | 35.46 | LGM | 34.28 |
| AITR1392-8HG-OHC1-A-MH2-RTD-3 | 12.0000 | 1.5080 | 0.1160 | 0.0097 | 0.2473 | 0.6280 | 5.878 | 6.0979 | 2.1319 | 6007.00 | 34.34 | LGM | 33.20 |
| AITR1392-8HG-OHC1-A-MH2-RTD-4 | | | | | | | | | | NT | | | |
| AITR1392-8HG-OHC1-B-MH1-RTD-1 | 12.0000 | 1.5090 | 0.1219 | 0.0102 | 0.2475 | 0.6300 | 5.878 | 6.0970 | 2.0304 | 6082.00 | 33.06 | LGM | 33.59 |
| AITR1392-8HG-OHC1-B-MH1-RTD-2 | 12.0000 | 1.5090 | 0.1200 | 0.0100 | 0.2477 | 0.6300 | 5.877 | 6.0920 | 2.0642 | 6243.00 | 34.48 | LGM | 34.48 |
| AITR1392-8HG-OHC1-B-MH1-RTD-3 | 12.0000 | 1.5100 | 0.1221 | 0.0102 | 0.2481 | 0.6300 | 5.879 | 6.0863 | 2.0319 | 6379.00 | 34.60 | LGM | 35.20 |
| AITR1392-8HG-OHC1-B-MH1-RTD-4 | | | | | | | | | | NT | | | |
| AITR1392-8HG-OHC1-B-MH2-RTD-1 | 12.0000 | 1.5100 | 0.1201 | 0.0100 | 0.2471 | 0.6300 | 5.879 | 6.1109 | 2.0575 | 6153.00 | 33.93 | LGM | 33.96 |
| AITR1392-8HG-OHC1-B-MH2-RTD-2 | 12.0000 | 1.5100 | 0.1216 | 0.0101 | 0.2472 | 0.6300 | 5.873 | 6.1084 | 2.0329 | 6453.00 | 35.14 | LGM | 35.61 |
| AITR1392-8HG-OHC1-B-MH2-RTD-3 | 12.0000 | 1.5100 | 0.1217 | 0.0101 | 0.2482 | 0.6280 | 5.879 | 6.0838 | 2.0394 | 6298.00 | 34.27 | LGM | 34.76 |
| AITR1392-8HG-OHC1-B-MH2-RTD-4 | | | | | | | | | | NT | | | |
| AITR1392-8HG-OHC1-C-MH1-RTD-1 | 12.0000 | 1.5090 | 0.1188 | 0.0099 | 0.2484 | 0.6290 | 5.875 | 6.0749 | 2.0909 | 5879.00 | 32.79 | LGM | 32.47 |
| AITR1392-8HG-OHC1-C-MH1-RTD-2 | 12.0000 | 1.5090 | 0.1191 | 0.0099 | 0.2482 | 0.6220 | 5.871 | 6.0798 | 2.0840 | 6410.00 | 35.67 | LGM | 35.40 |
| AITR1392-8HG-OHC1-C-MH1-RTD-3 | 12.0000 | 1.5080 | 0.1154 | 0.0096 | 0.2481 | 0.6290 | 5.874 | 6.0782 | 2.1499 | 6022.00 | 34.60 | LGM | 33.28 |
| AITR1392-8HG-OHC1-C-MH1-RTD-4 | | | | | | | | | | NT | | | |
| AITR1392-8HG-OHC1-C-MH2-RTD-1 | 12.0000 | 1.5100 | 0.1157 | 0.0096 | 0.2472 | 0.6280 | 5.875 | 6.1084 | 2.1366 | 6048.00 | 34.62 | LGM | 33.38 |
| AITR1392-8HG-OHC1-C-MH2-RTD-2 | 12.0000 | 1.5090 | 0.1220 | 0.0102 | 0.2470 | 0.6270 | 5.875 | 6.1093 | 2.0246 | 6344.00 | 34.46 | LGM | 35.03 |
| AITR1392-8HG-OHC1-C-MH2-RTD-3 | 12.0000 | 1.5090 | 0.1190 | 0.0099 | 0.2470 | 0.6290 | 5.875 | 6.1093 | 2.0756 | 6155.00 | 34.28 | LGM | 33.99 |
| AITR1392-8HG-OHC1-C-MH2-RTD-4 | | | | | | | | | | NT | | | |
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| | | | | | | | | | | | | | |
| Minimum | 12.0000 | 1.5080 | 0.1140 | 0.0095 | 0.2470 | 0.6220 | 5.8710 | 6.0684 | 2.0246 | 5879.0000 | 32.7943 | | 32.4663 |
| Maximum | 12.0000 | 1.5100 | 0.1221 | 0.0102 | 0.2485 | 0.6300 | 5.8790 | 6.1134 | 2.1798 | 6453.0000 | 36.4296 | | 35.6126 |
| Average | 12.0000 | 1.5090 | 0.1184 | 0.0099 | 0.2476 | 0.6284 | 5.8764 | 6.0951 | 2.0929 | 6196.2222 | 34.7045 | | 34.2180 |
| Standard Deviation | 0.0000 | 0.0008 | 0.0028 | 0.0002 | 0.0005 | 0.0019 | 0.0023 | 0.0141 | 0.0503 | 154.3668 | 0.9271 | | 0.8448 |
| Coefficient of Variation (%) | 0.00 | 0.06 | 2.40 | 2.40 | 0.22 | 0.30 | 0.04 | 0.23 | 2.40 | 2.49 | 2.67 | | 2.47 |
| No. Specimens | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | | 18 |

**Notes:**
NT=Not Tested or Excluded
NR=No Result
NA=Not Applicable
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | OHC1 | MH | ETW | | | | | | |

**Test Group: AITR1392-8HG-OHC1-MH-ETW**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01

Test Type: Open-Hole Compression Layup 1 Condition: ETW #Plies: 12

Test Method: MP1119 (ASTMD6484)

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in | Width, in | Thickness, in | Cured Ply Thickness: | Diameter | Hole Edge-Side (f) | Hole Edge-End (g) | Width/ Diameter | Diameter/ Thickness | Ultimate Load, lb | Ultimate Strength, ksi | Failure Mode | **Normalized** Ultimate Strength, |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AITR1392-8HG-OHC1-A-MH1-ETW-1 | 12.0100 | 1.5080 | 0.1180 | 0.0098 | 0.2473 | 0.6260 | 5.873 | 6.0979 | 2.0958 | 4082.00 | 22.94 | LGM | 22.56 |
| AITR1392-8HG-OHC1-A-MH1-ETW-2 | 12.0160 | 1.5080 | 0.1180 | 0.0098 | 0.2480 | 0.6270 | 5.877 | 6.0806 | 2.1017 | 4065.00 | 22.84 | LGM | 22.46 |
| AITR1392-8HG-OHC1-A-MH1-ETW-3 | 12.0200 | 1.5100 | 0.1190 | 0.0099 | 0.2472 | 0.6290 | 5.878 | 6.1084 | 2.0773 | 4017.00 | 22.36 | LGM | 22.17 |
| AITR1392-8HG-OHC1-A-MH1-ETW-4 | | | | | | | | | | NT | | | |
| AITR1392-8HG-OHC1-A-MH2-ETW-1 | 12.0150 | 1.5080 | 0.1140 | 0.0095 | 0.2480 | 0.6250 | 5.878 | 6.0806 | 2.1754 | 4085.00 | 23.76 | LGM | 22.57 |
| AITR1392-8HG-OHC1-A-MH2-ETW-2 | 12.0160 | 1.5100 | 0.1170 | 0.0098 | 0.2481 | 0.6280 | 5.878 | 6.0863 | 2.1205 | 4126.00 | 23.35 | LGM | 22.77 |
| AITR1392-8HG-OHC1-A-MH2-ETW-3 | 12.0160 | 1.5090 | 0.1170 | 0.0098 | 0.2470 | 0.6270 | 5.878 | 6.1093 | 2.1111 | 3968.00 | 22.47 | LGM | 21.91 |
| AITR1392-8HG-OHC1-A-MH2-ETW-4 | | | | | | | | | | NT | | | |
| Minimum | 12.0100 | 1.5080 | 0.1140 | 0.0095 | 0.2470 | 0.6250 | 5.8730 | 6.0806 | 2.0773 | 3968.0000 | 22.3552 | | 21.9130 |
| Maximum | 12.0200 | 1.5100 | 0.1190 | 0.0099 | 0.2481 | 0.6290 | 5.8780 | 6.1093 | 2.1754 | 4126.0000 | 23.7622 | | 22.7704 |
| Average | 12.0155 | 1.5088 | 0.1172 | 0.0098 | 0.2476 | 0.6270 | 5.8770 | 6.0939 | 2.1136 | 4057.1667 | 22.9551 | | 22.4079 |
| Standard Deviation | 0.0032 | 0.0010 | 0.0017 | 0.0001 | 0.0005 | 0.0014 | 0.0020 | 0.0132 | 0.0336 | 56.1335 | 0.5317 | | 0.3120 |
| Coefficient of Variation (%) | 0.03 | 0.07 | 1.47 | 1.47 | 0.20 | 0.23 | 0.03 | 0.22 | 1.59 | 1.38 | 2.32 | | 1.39 |
| No. Specimens | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | 6 |

**Notes:**
NT=Not Tested or Excluded
NR=No Result
NA=Not Applicable
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | OHC1 | MH | ETW2 | | | | | | |

**Test Group: AITR1392-8HG-OHC1-MH-ETW2**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01
Test Type: Open-Hole Compression Layup 1 Condition: ETW2 #Plies: 12
Test Method: MP1119 (ASTMD6484)

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in | Width, in | Thickness, in | Cured Ply Thickness: | Diameter | Hole Edge-Side (f) | Hole Edge-End (g) | Width/ Diameter | Diameter/ Thickness | Ultimate Load, lb | Ultimate Strength, ksi | Failure Mode | **Normalized** Ultimate Strength, |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AITR1392-8HG-OHC1-A-MH1-ETW2-1 | 12.0140 | 1.5090 | 0.1160 | 0.0097 | 0.2470 | 0.6280 | 5.877 | 6.1093 | 2.1293 | 3512.00 | 20.06 | LGM | 19.39 |
| AITR1392-8HG-OHC1-A-MH1-ETW2-2 | 12.0140 | 1.5100 | 0.1180 | 0.0098 | 0.2483 | 0.6280 | 5.878 | 6.0814 | 2.1042 | 3714.00 | 20.84 | LGM | 20.50 |
| AITR1392-8HG-OHC1-A-MH1-ETW2-3 | 12.0190 | 1.5100 | 0.1170 | 0.0098 | 0.2480 | 0.6290 | 5.878 | 6.0887 | 2.1197 | 3732.00 | 21.12 | LGM | 20.60 |
| AITR1392-8HG-OHC1-A-MH1-ETW2-4 | 12.0150 | 1.5100 | 0.1100 | 0.0092 | 0.2486 | 0.6280 | 5.878 | 6.0740 | 2.2600 | NT | | | |
| AITR1392-8HG-OHC1-A-MH2-ETW2-1 | 12.0140 | 1.5090 | 0.1180 | 0.0098 | 0.2480 | 0.6280 | 5.878 | 6.0847 | 2.1017 | 3756.00 | 21.09 | LGM | 20.74 |
| AITR1392-8HG-OHC1-A-MH2-ETW2-2 | 12.0120 | 1.5090 | 0.1170 | 0.0098 | 0.2470 | 0.6280 | 5.875 | 6.1093 | 2.1111 | 3601.00 | 20.40 | LGM | 19.89 |
| AITR1392-8HG-OHC1-A-MH2-ETW2-3 | 12.0140 | 1.5090 | 0.1180 | 0.0098 | 0.2470 | 0.6300 | 5.878 | 6.1093 | 2.0932 | 3840.00 | 21.57 | LGM | 21.21 |
| AITR1392-8HG-OHC1-A-MH2-ETW2-4 | 12.0150 | 1.5090 | 0.1170 | 0.0098 | 0.2476 | 0.6280 | 5.878 | 6.0945 | 2.1162 | NT | | | |
| AITR1392-8HG-OHC1-B-MH1-ETW2-1 | 12.0140 | 1.5090 | 0.1200 | 0.0100 | 0.2471 | 0.6270 | 5.876 | 6.1068 | 2.0592 | 3816.00 | 21.07 | LGM | 21.07 |
| AITR1392-8HG-OHC1-B-MH1-ETW2-2 | | | | | | | | | | NT | | | |
| AITR1392-8HG-OHC1-B-MH1-ETW2-3 | 12.0150 | 1.5100 | 0.1200 | 0.0100 | 0.2475 | 0.6290 | 5.879 | 6.1010 | 2.0625 | 3781.00 | 20.87 | LGM | 20.87 |
| AITR1392-8HG-OHC1-B-MH1-ETW2-4 | 12.0180 | 1.5100 | 0.1240 | 0.0103 | 0.2470 | 0.6280 | 5.88 | 6.1134 | 1.9919 | 3703.00 | 19.78 | LGM | 20.44 |
| AITR1392-8HG-OHC1-B-MH2-ETW2-1 | 12.0060 | 1.5100 | 0.1180 | 0.0098 | 0.2482 | 0.6300 | 5.871 | 6.0838 | 2.1034 | 3620.00 | 20.32 | LGM | 19.98 |
| AITR1392-8HG-OHC1-B-MH2-ETW2-2 | 12.0100 | 1.5090 | 0.1210 | 0.0101 | 0.2479 | 0.6270 | 5.874 | 6.0871 | 2.0488 | 3688.00 | 20.20 | LGM | 20.37 |
| AITR1392-8HG-OHC1-B-MH2-ETW2-3 | 12.0120 | 1.5090 | 0.1200 | 0.0100 | 0.2476 | 0.6290 | 5.877 | 6.0945 | 2.0633 | 4050.00 | 22.37 | LGM | 22.37 |
| AITR1392-8HG-OHC1-B-MH2-ETW2-4 | 12.0110 | 1.5100 | 0.1190 | 0.0099 | 0.2478 | 0.6290 | 5.875 | 6.0936 | 2.0824 | NT | | | |
| AITR1392-8HG-OHC1-C-MH1-ETW2-1 | 12.0130 | 1.5090 | 0.1180 | 0.0098 | 0.2470 | 0.6260 | 5.874 | 6.1093 | 2.0932 | 3868.00 | 21.72 | LGM | 21.36 |
| AITR1392-8HG-OHC1-C-MH1-ETW2-2 | 12.0120 | 1.5050 | 0.1150 | 0.0096 | 0.2470 | 0.6260 | 5.871 | 6.0931 | 2.1478 | 3698.00 | 21.37 | LGM | 20.48 |
| AITR1392-8HG-OHC1-C-MH1-ETW2-3 | 12.0130 | 1.5060 | 0.1180 | 0.0098 | 0.2470 | 0.6260 | 5.872 | 6.0972 | 2.0932 | 3665.00 | 20.62 | LGM | 20.28 |
| AITR1392-8HG-OHC1-C-MH1-ETW2-4 | 12.0160 | 1.5060 | 0.1190 | 0.0099 | 0.2470 | 0.6270 | 5.874 | 6.0972 | 2.0756 | NT | | | |
| AITR1392-8HG-OHC1-C-MH2-ETW2-1 | 12.0090 | 1.5090 | 0.1200 | 0.0100 | 0.2470 | 0.6290 | 5.873 | 6.1093 | 2.0583 | 3943.00 | 21.77 | LGM | 21.77 |
| AITR1392-8HG-OHC1-C-MH2-ETW2-2 | 12.0120 | 1.5090 | 0.1200 | 0.0100 | 0.2470 | 0.6290 | 5.875 | 6.1093 | 2.0583 | 3737.00 | 20.64 | LGM | 20.64 |
| AITR1392-8HG-OHC1-C-MH2-ETW2-3 | 12.0080 | 1.5080 | 0.1150 | 0.0096 | 0.2470 | 0.6270 | 5.872 | 6.1053 | 2.1478 | 3501.00 | 20.19 | LGM | 19.35 |
| AITR1392-8HG-OHC1-C-MH2-ETW2-4 | 12.0150 | 1.5090 | 0.1180 | 0.0098 | 0.2470 | 0.6280 | 5.878 | 6.1093 | 2.0932 | NT | | | |
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| Minimum | 12.0060 | 1.5050 | 0.1100 | 0.0092 | 0.2470 | 0.6260 | 5.8710 | 6.0740 | 1.9919 | 3501.0000 | 19.7768 | | 19.3468 |
| Maximum | 12.0190 | 1.5100 | 0.1240 | 0.0103 | 0.2486 | 0.6300 | 5.8800 | 6.1134 | 2.2600 | 4050.0000 | 22.3658 | | 22.3658 |
| Average | 12.0131 | 1.5088 | 0.1181 | 0.0098 | 0.2474 | 0.6280 | 5.8757 | 6.0983 | 2.0963 | 3734.7222 | 20.8888 | | 20.6269 |
| Standard Deviation | 0.0030 | 0.0014 | 0.0027 | 0.0002 | 0.0005 | 0.0012 | 0.0027 | 0.0112 | 0.0499 | 138.4667 | 0.6891 | | 0.7623 |
| Coefficient of Variation (%) | 0.02 | 0.09 | 2.25 | 2.25 | 0.21 | 0.19 | 0.05 | 0.18 | 2.38 | 3.71 | 3.30 | | 3.70 |
| No. Specimens | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 18 | 18 | | 18 |

**Notes:**
NT=Not Tested or Excluded
NR=No Result
NA=Not Applicable
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | OHC2 | MH | RTD | | | | | | |

**Test Group: AITR1392-8HG-OHC2-MH-RTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01

Test Type: Open-Hole Compression Layup 2 Condition: RTD #Plies: 15

Test Method: MP1119 (ASTMD6484)

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in | Width, in | Thickness, in | Cured Ply Thickness: | Diameter | Hole Edge-Side (f) | Hole Edge-End (g) | Width/ Diameter | Diameter/ Thickness | Ultimate Load, lb | Ultimate Strength, ksi | Failure Mode | Normalized Ultimate Strength, |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AITR1392-8HG-OHC2-A-MH1-RTD-1 | 12.0000 | 1.5100 | 0.1448 | 0.0097 | 0.2473 | 0.6280 | 5.875 | 6.1059 | 1.7079 | 7113.00 | 32.53 | AGM | 31.40 |
| AITR1392-8HG-OHC2-A-MH1-RTD-2 | 12.0000 | 1.5100 | 0.1474 | 0.0098 | 0.2480 | 0.6280 | 5.874 | 6.0887 | 1.6825 | 7083.00 | 31.82 | AGM | 31.27 |
| AITR1392-8HG-OHC2-A-MH1-RTD-3 | 12.0000 | 1.5090 | 0.1487 | 0.0099 | 0.2478 | 0.6280 | 5.878 | 6.0896 | 1.6664 | 6947.00 | 30.96 | AGM | 30.69 |
| AITR1392-8HG-OHC2-A-MH1-RTD-4 | 12.0000 | 1.5090 | 0.1464 | 0.0098 | 0.2473 | 0.6290 | 5.877 | 6.1019 | 1.6892 | 7016.00 | 31.76 | AGM | 31.00 |
| AITR1392-8HG-OHC2-A-MH2-RTD-1 | 12.0000 | 1.5090 | 0.1452 | 0.0097 | 0.2472 | 0.6270 | 5.875 | 6.1044 | 1.7025 | 6989.00 | 31.90 | LGM | 30.88 |
| AITR1392-8HG-OHC2-A-MH2-RTD-2 | 12.0000 | 1.5050 | 0.1467 | 0.0098 | 0.2470 | 0.6210 | 5.872 | 6.0931 | 1.6837 | 7309.00 | 33.10 | LGM | 32.38 |
| AITR1392-8HG-OHC2-A-MH2-RTD-3 | 12.0000 | 1.4980 | 0.1457 | 0.0097 | 0.2478 | 0.6190 | 5.87 | 6.0452 | 1.7008 | 6888.00 | 31.56 | LGM | 30.65 |
| AITR1392-8HG-OHC2-A-MH2-RTD-4 | 12.0000 | 1.5080 | 0.1439 | 0.0096 | 0.2474 | 0.6250 | 5.876 | 6.0954 | 1.7192 | 6672.00 | 30.75 | AGM | 29.50 |
| Minimum | 12.0000 | 1.4980 | 0.1439 | 0.0096 | 0.2470 | 0.6190 | 5.8700 | 6.0452 | 1.6664 | 6672.0000 | 30.7464 | | 29.4960 |
| Maximum | 12.0000 | 1.5100 | 0.1487 | 0.0099 | 0.2480 | 0.6290 | 5.8780 | 6.1059 | 1.7192 | 7309.0000 | 33.1048 | | 32.3765 |
| Average | 12.0000 | 1.5073 | 0.1461 | 0.0097 | 0.2475 | 0.6256 | 5.8746 | 6.0905 | 1.6940 | 7002.1250 | 31.7976 | | 30.9709 |
| Standard Deviation | 0.0000 | 0.0041 | 0.0015 | 0.0001 | 0.0003 | 0.0037 | 0.0026 | 0.0194 | 0.0168 | 184.5523 | 0.7676 | | 0.8121 |
| Coefficient of Variation (%) | 0.00 | 0.27 | 1.05 | 1.05 | 0.14 | 0.59 | 0.04 | 0.32 | 0.99 | 2.64 | 2.41 | | 2.62 |
| No. Specimens | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | | 8 |

**Notes:**
NT=Not Tested or Excluded
NR=No Result
NA=Not Applicable
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | OHC2 | MH | ETW2 | | | | | | |

**Test Group: AITR1392-8HG-OHC2-MH-ETW2**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01
Test Type: Open-Hole Compression Layup 2 Condition: ETW2 #Plies: 15
Test Method: MP1119 (ASTMD6484)

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in | Width, in | Thickness, in | Cured Ply Thickness: | Diameter | Hole Edge-Side (f) | Hole Edge-End (g) | Width/ Diameter | Diameter/ Thickness | Ultimate Load, lb | Ultimate Strength, ksi | Failure Mode | **Normalized** Ultimate Strength, |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AITR1392-8HG-OHC2-A-MH1-ETW2-1 | 12.0080 | 1.5090 | 0.1470 | 0.0098 | 0.2470 | 0.6290 | 5.873 | 6.1093 | 1.6803 | 4019.00 | 18.12 | LGM | 17.76 |
| AITR1392-8HG-OHC2-A-MH1-ETW2-2 | 12.0110 | 1.5110 | 0.1490 | 0.0099 | 0.2470 | 0.6290 | 5.873 | 6.1174 | 1.6577 | 4152.00 | 18.44 | AGM | 18.32 |
| AITR1392-8HG-OHC2-A-MH1-ETW2-3 | 12.0080 | 1.5090 | 0.1420 | 0.0095 | 0.2480 | 0.6280 | 5.871 | 6.0847 | 1.7465 | 4084.00 | 19.06 | AGM | 18.04 |
| AITR1392-8HG-OHC2-A-MH1-ETW2-4 | | | | | | | | | | NT | | | |
| AITR1392-8HG-OHC2-A-MH2-ETW2-1 | 12.0100 | 1.5090 | 0.1450 | 0.0097 | 0.2470 | 0.6260 | 5.875 | 6.1093 | 1.7034 | 4082.00 | 18.66 | LGM | 18.03 |
| AITR1392-8HG-OHC2-A-MH2-ETW2-2 | 12.0080 | 1.5090 | 0.1420 | 0.0095 | 0.2470 | 0.6290 | 5.872 | 6.1093 | 1.7394 | 4136.00 | 19.30 | LGM | 18.27 |
| AITR1392-8HG-OHC2-A-MH2-ETW2-3 | 12.0060 | 1.5080 | 0.1420 | 0.0095 | 0.2470 | 0.6280 | 5.87 | 6.1053 | 1.7394 | 4242.00 | 19.81 | AGM/LGM | 18.75 |
| AITR1392-8HG-OHC2-A-MH2-ETW2-4 | | | | | | | | | | NT | | | |
| AITR1392-8HG-OHC2-B-MH1-ETW2-1 | 12.0040 | 1.5070 | 0.1450 | 0.0097 | 0.2470 | 0.6270 | 5.87 | 6.1012 | 1.7034 | 4148.00 | 18.98 | LGM | 18.35 |
| AITR1392-8HG-OHC2-B-MH1-ETW2-2 | 12.0080 | 1.5090 | 0.1460 | 0.0097 | 0.2470 | 0.6290 | 5.871 | 6.1093 | 1.6918 | 4299.00 | 19.51 | LGM | 18.99 |
| AITR1392-8HG-OHC2-B-MH1-ETW2-3 | 12.0070 | 1.5090 | 0.1500 | 0.0100 | 0.2480 | 0.6280 | 5.872 | 6.0847 | 1.6533 | 4566.00 | 20.17 | LGM/AGM | 20.17 |
| AITR1392-8HG-OHC2-B-MH1-ETW2-4 | | | | | | | | | | NT | | | |
| AITR1392-8HG-OHC2-B-MH2-ETW2-1 | 12.0080 | 1.5080 | 0.1460 | 0.0097 | 0.2470 | 0.6290 | 5.871 | 6.1053 | 1.6918 | 4360.00 | 19.80 | AGM/LGM | 19.27 |
| AITR1392-8HG-OHC2-B-MH2-ETW2-2 | 12.0110 | 1.5090 | 0.1490 | 0.0099 | 0.2470 | 0.6280 | 5.874 | 6.1093 | 1.6577 | 4633.00 | 20.61 | LGM | 20.47 |
| AITR1392-8HG-OHC2-B-MH2-ETW2-3 | 12.0100 | 1.5090 | 0.1510 | 0.0101 | 0.2470 | 0.6280 | 5.874 | 6.1093 | 1.6358 | 4702.00 | 20.64 | LGM/AGM | 20.77 |
| AITR1392-8HG-OHC2-B-MH2-ETW2-4 | | | | | | | | | | NT | | | |
| AITR1392-8HG-OHC2-C-MH1-ETW2-1 | 12.0100 | 1.5090 | 0.1500 | 0.0100 | 0.2470 | 0.6290 | 5.875 | 6.1093 | 1.6467 | 4296.00 | 18.98 | LGM | 18.98 |
| AITR1392-8HG-OHC2-C-MH1-ETW2-2 | 12.0090 | 1.5090 | 0.1470 | 0.0098 | 0.2470 | 0.6280 | 5.874 | 6.1093 | 1.6803 | 4191.00 | 18.89 | AGM | 18.52 |
| AITR1392-8HG-OHC2-C-MH1-ETW2-3 | 12.0100 | 1.5080 | 0.1500 | 0.0100 | 0.2470 | 0.6250 | 5.874 | 6.1053 | 1.6467 | 4322.00 | 19.11 | AGM | 19.11 |
| AITR1392-8HG-OHC2-C-MH1-ETW2-4 | | | | | | | | | | NT | | | |
| AITR1392-8HG-OHC2-C-MH2-ETW2-1 | 12.0110 | 1.5090 | 0.1490 | 0.0099 | 0.2470 | 0.6280 | 5.874 | 6.1093 | 1.6577 | 4416.00 | 19.64 | AGM | 19.51 |
| AITR1392-8HG-OHC2-C-MH2-ETW2-2 | 12.0150 | 1.5090 | 0.1500 | 0.0100 | 0.2470 | 0.6280 | 5.879 | 6.1093 | 1.6467 | 4219.00 | 18.64 | AGM | 18.64 |
| AITR1392-8HG-OHC2-C-MH2-ETW2-3 | 12.0130 | 1.5090 | 0.1480 | 0.0099 | 0.2470 | 0.6290 | 5.877 | 6.1093 | 1.6689 | 4280.00 | 19.16 | AGM | 18.91 |
| AITR1392-8HG-OHC2-C-MH2-ETW2-4 | | | | | | | | | | NT | | | |
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| | | | | | | | | | | | | | |
| Minimum | 12.0040 | 1.5070 | 0.1420 | 0.0095 | 0.2470 | 0.6250 | 5.8700 | 6.0847 | 1.6358 | 4019.0000 | 18.1180 | | 17.7557 |
| Maximum | 12.0150 | 1.5110 | 0.1510 | 0.0101 | 0.2480 | 0.6290 | 5.8790 | 6.1174 | 1.7465 | 4702.0000 | 20.6356 | | 20.7731 |
| Average | 12.0093 | 1.5088 | 0.1471 | 0.0098 | 0.2471 | 0.6281 | 5.8733 | 6.1059 | 1.6804 | 4285.9444 | 19.3069 | | 18.9371 |
| Standard Deviation | 0.0025 | 0.0008 | 0.0030 | 0.0002 | 0.0003 | 0.0011 | 0.0024 | 0.0083 | 0.0347 | 191.6647 | 0.7025 | | 0.8470 |
| Coefficient of Variation (%) | 0.02 | 0.05 | 2.02 | 2.02 | 0.13 | 0.18 | 0.04 | 0.14 | 2.07 | 4.47 | 3.64 | | 4.47 |
| No. Specimens | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | | 18 |

**Notes:**
NT=Not Tested or Excluded
NR=No Result
NA=Not Applicable
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | OHC3 | MH | RTD | | | | | | |

**Test Group: AITR1392-8HG-OHC3-MH-RTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01

Test Type: Open-Hole Compression Layup 3 Condition: RTD #Plies: 15

Test Method: MP1119 (ASTMD6484)

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in | Width, in | Thickness, in | Cured Ply Thickness: | Diameter | Hole Edge-Side (f) | Hole Edge-End (g) | Width/ Diameter | Diameter/ Thickness | Ultimate Load, lb | Ultimate Strength, ksi | Failure Mode | **Normalized** Ultimate Strength, |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AITR1392-8HG-OHC3-A-MH1-RTD-1 | 12.0000 | 1.5080 | 0.1463 | 0.0098 | 0.2473 | 0.6280 | 5.874 | 6.0979 | 1.6904 | 8246.00 | 37.38 | LGM | 36.45 |
| AITR1392-8HG-OHC3-A-MH1-RTD-2 | 12.0000 | 1.5090 | 0.1434 | 0.0096 | 0.2470 | 0.6280 | 5.877 | 6.1093 | 1.7225 | 8587.00 | 39.68 | LGM | 37.94 |
| AITR1392-8HG-OHC3-A-MH1-RTD-3 | 12.0000 | 1.5090 | 0.1449 | 0.0097 | 0.2471 | 0.6280 | 5.876 | 6.1068 | 1.7053 | 8470.00 | 38.74 | LGM | 37.42 |
| AITR1392-8HG-OHC3-A-MH1-RTD-4 | | | | | | | | | | NT | | | |
| AITR1392-8HG-OHC3-A-MH2-RTD-1 | 12.0000 | 1.5100 | 0.1466 | 0.0098 | 0.2474 | 0.6280 | 5.876 | 6.1035 | 1.6876 | 8585.00 | 38.78 | LGM | 37.90 |
| AITR1392-8HG-OHC3-A-MH2-RTD-2 | 12.0000 | 1.5090 | 0.1468 | 0.0098 | 0.2478 | 0.6280 | 5.875 | 6.0896 | 1.6880 | 8240.00 | 37.20 | LGM | 36.40 |
| AITR1392-8HG-OHC3-A-MH2-RTD-3 | 12.0000 | 1.5090 | 0.1478 | 0.0099 | 0.2476 | 0.6280 | 5.874 | 6.0945 | 1.6752 | 8260.00 | 37.04 | LGM | 36.49 |
| AITR1392-8HG-OHC3-A-MH2-RTD-4 | | | | | | | | | | NT | | | |
| Minimum | 12.0000 | 1.5080 | 0.1434 | 0.0096 | 0.2470 | 0.6280 | 5.8740 | 6.0896 | 1.6752 | 8240.0000 | 37.0353 | | 36.4038 |
| Maximum | 12.0000 | 1.5100 | 0.1478 | 0.0099 | 0.2478 | 0.6280 | 5.8770 | 6.1093 | 1.7225 | 8587.0000 | 39.6829 | | 37.9368 |
| Average | 12.0000 | 1.5090 | 0.1460 | 0.0097 | 0.2474 | 0.6280 | 5.8753 | 6.1003 | 1.6948 | 8398.0000 | 38.1351 | | 37.1017 |
| Standard Deviation | 0.0000 | 0.0006 | 0.0016 | 0.0001 | 0.0003 | 0.0000 | 0.0012 | 0.0076 | 0.0166 | 169.1071 | 1.0808 | | 0.7373 |
| Coefficient of Variation (%) | 0.00 | 0.04 | 1.07 | 1.07 | 0.12 | 0.00 | 0.02 | 0.12 | 0.98 | 2.01 | 2.83 | | 1.99 |
| No. Specimens | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | 6 |

**Notes:**
NT=Not Tested or Excluded
NR=No Result
NA=Not Applicable
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | OHC3 | MH | ETW2 | | | | | | |

**Test Group: AITR1392-8HG-OHC3-MH-ETW2**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01
Test Type: Open-Hole Compression Layup 3 Condition: ETW2 #Plies: 15
Test Method: MP1119 (ASTMD6484)

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in | Width, in | Thickness, in | Cured Ply Thickness: | Diameter | Hole Edge-Side (f) | Hole Edge-End (g) | Width/ Diameter | Diameter/ Thickness | Ultimate Load, lb | Ultimate Strength, ksi | Failure Mode | **Normalized** Ultimate Strength, |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AITR1392-8HG-OHC3-A-MH1-ETW2-1 | 12.0070 | 1.5100 | 0.1500 | 0.0100 | 0.2475 | 0.6280 | 5.8783 | 6.1010 | 1.6500 | 5307.00 | 23.43 | LGM | 23.43 |
| AITR1392-8HG-OHC3-A-MH1-ETW2-2 | 12.0090 | 1.5100 | 0.1450 | 0.0097 | 0.2475 | 0.6280 | 5.874 | 6.1010 | 1.7069 | 5599.00 | 25.57 | LGM | 24.72 |
| AITR1392-8HG-OHC3-A-MH1-ETW2-3 | 12.0060 | 1.5090 | 0.1500 | 0.0100 | 0.2475 | 0.6260 | 5.873 | 6.0970 | 1.6500 | 5564.00 | 24.58 | LGM | 24.58 |
| AITR1392-8HG-OHC3-A-MH1-ETW2-4 | 12.0040 | | | | | | | | | NT | | | |
| AITR1392-8HG-OHC3-A-MH2-ETW2-1 | 12.0100 | 1.5100 | 0.1470 | 0.0098 | 0.2472 | 0.6280 | 5.878 | 6.1084 | 1.6816 | 5356.00 | 24.13 | LGM | 23.65 |
| AITR1392-8HG-OHC3-A-MH2-ETW2-2 | 12.0070 | 1.5100 | 0.1460 | 0.0097 | 0.2473 | 0.6270 | 5.871 | 6.1059 | 1.6938 | 5157.00 | 23.39 | LGM | 22.77 |
| AITR1392-8HG-OHC3-A-MH2-ETW2-3 | 12.0110 | 1.5110 | 0.1480 | 0.0099 | 0.2473 | 0.6290 | 5.878 | 6.1100 | 1.6709 | 5280.00 | 23.61 | LGM | 23.30 |
| AITR1392-8HG-OHC3-A-MH2-ETW2-4 | 12.0100 | | | | | | | | | NT | | | |
| AITR1392-8HG-OHC3-B-MH1-ETW2-1 | 12.0080 | 1.5100 | 0.1510 | 0.0101 | 0.2470 | 0.6280 | 5.872 | 6.1134 | 1.6358 | 5392.00 | 23.65 | LGM | 23.81 |
| AITR1392-8HG-OHC3-B-MH1-ETW2-2 | 12.0070 | 1.5080 | 0.1470 | 0.0098 | 0.2470 | 0.6280 | 5.871 | 6.1053 | 1.6803 | 5310.00 | 23.95 | LGM | 23.47 |
| AITR1392-8HG-OHC3-B-MH1-ETW2-3 | 12.0040 | 1.5090 | 0.1480 | 0.0099 | 0.2470 | 0.6270 | 5.87 | 6.1093 | 1.6689 | 5252.00 | 23.52 | LGM | 23.20 |
| AITR1392-8HG-OHC3-B-MH1-ETW2-4 | 12.0070 | | | | | | | | | NT | | | |
| AITR1392-8HG-OHC3-B-MH2-ETW2-1 | 12.0060 | 1.5080 | 0.1520 | 0.0101 | 0.2470 | 0.6290 | 5.87 | 6.1053 | 1.6250 | 5380.00 | 23.47 | LGM | 23.78 |
| AITR1392-8HG-OHC3-B-MH2-ETW2-2 | 12.0070 | 1.5080 | 0.1490 | 0.0099 | 0.2470 | 0.6280 | 5.872 | 6.1053 | 1.6577 | 5526.00 | 24.59 | LGM | 24.43 |
| AITR1392-8HG-OHC3-B-MH2-ETW2-3 | 12.0080 | 1.5080 | 0.1540 | 0.0103 | 0.2470 | 0.6290 | 5.871 | 6.1053 | 1.6039 | 5394.00 | 23.23 | LGM | 23.85 |
| AITR1392-8HG-OHC3-B-MH2-ETW2-4 | 12.0070 | | | | | | | | | NT | | | |
| AITR1392-8HG-OHC3-C-MH1-ETW2-1 | 12.0130 | 1.5090 | 0.1530 | 0.0102 | 0.2470 | 0.6270 | 5.878 | 6.1093 | 1.6144 | 5144.00 | 22.28 | LGM | 22.73 |
| AITR1392-8HG-OHC3-C-MH1-ETW2-2 | 12.0080 | 1.5090 | 0.1460 | 0.0097 | 0.2470 | 0.6260 | 5.874 | 6.1093 | 1.6918 | 5204.00 | 23.62 | LGM | 22.99 |
| AITR1392-8HG-OHC3-C-MH1-ETW2-3 | 12.0120 | 1.5090 | 0.1490 | 0.0099 | 0.2470 | 0.6280 | 5.877 | 6.1093 | 1.6577 | 5040.00 | 22.42 | LGM | 22.27 |
| AITR1392-8HG-OHC3-C-MH1-ETW2-4 | 12.0080 | | | | | | | | | NT | | | |
| AITR1392-8HG-OHC3-C-MH2-ETW2-1 | 12.0060 | 1.5070 | 0.1530 | 0.0102 | 0.2470 | 0.6250 | 5.875 | 6.1012 | 1.6144 | 5241.00 | 22.73 | LGM | 23.19 |
| AITR1392-8HG-OHC3-C-MH2-ETW2-2 | 12.0080 | 1.5100 | 0.1470 | 0.0098 | 0.2470 | 0.6280 | 5.873 | 6.1134 | 1.6803 | 5275.00 | 23.76 | LGM | 23.29 |
| AITR1392-8HG-OHC3-C-MH2-ETW2-3 | 12.0090 | 1.5110 | 0.1550 | 0.0103 | 0.2470 | 0.6280 | 5.874 | 6.1174 | 1.5935 | 5230.00 | 22.33 | LGM | 23.08 |
| AITR1392-8HG-OHC3-C-MH2-ETW2-4 | 12.0110 | | | | | | | | | NT | | | |
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| Minimum | 12.0040 | 1.5070 | 0.1450 | 0.0097 | 0.2470 | 0.6250 | 5.8700 | 6.0970 | 1.5935 | 5040.0000 | 22.2803 | | 22.2664 |
| Maximum | 12.0130 | 1.5110 | 0.1550 | 0.0103 | 0.2475 | 0.6290 | 5.8783 | 6.1174 | 1.7069 | 5599.0000 | 25.5720 | | 24.7196 |
| Average | 12.0080 | 1.5092 | 0.1494 | 0.0100 | 0.2471 | 0.6276 | 5.8739 | 6.1071 | 1.6543 | 5313.9444 | 23.5705 | | 23.4733 |
| Standard Deviation | 0.0023 | 0.0011 | 0.0030 | 0.0002 | 0.0002 | 0.0011 | 0.0029 | 0.0051 | 0.0334 | 146.9231 | 0.8403 | | 0.6508 |
| Coefficient of Variation (%) | 0.02 | 0.07 | 2.00 | 2.00 | 0.08 | 0.17 | 0.05 | 0.08 | 2.02 | 2.76 | 3.57 | | 2.77 |
| No. Specimens | 24 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | | 18 |

**Notes:**
NT=Not Tested or Excluded
NR=No Result
NA=Not Applicable
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | FHT1 | MH | CTD | | | | |

**Test Group: AITR1392-8HG-FHT1-MH-CTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01

Test Type: Filled-Hole Tension Layup 1 Condition: CTD #Plies: 12

Test Method: MP1118 (ASTMD6742)

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in | Width, in | Thickness, in | Cured Ply Thickness: | Diameter | Width/ Diameter | Diameter/ Thickness | Ultimate Load, lb | Ultimate Strength, ksi | Failure Mode | **Normalized** Ultimate Strength, |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AITR1392-8HG-FHT1-A-MH1-CTD-1 | 12.0000 | 1.5070 | 0.1200 | 0.0100 | 0.2509 | 6.0064 | 2.0908 | 6548.09 | 36.21 | LGM | 36.21 |
| AITR1392-8HG-FHT1-A-MH1-CTD-2 | 12.0000 | 1.5080 | 0.1200 | 0.0100 | 0.2504 | 6.0224 | 2.0867 | 6246.57 | 34.52 | LGM | 34.52 |
| AITR1392-8HG-FHT1-A-MH1-CTD-3 | 12.0000 | 1.5080 | 0.1200 | 0.0100 | 0.2509 | 6.0104 | 2.0908 | 6693.30 | 36.99 | LGM | 36.99 |
| AITR1392-8HG-FHT1-A-MH1-CTD-4 | | | | | | | | NT | | | |
| AITR1392-8HG-FHT1-A-MH2-CTD-1 | 12.0000 | 1.5080 | 0.1190 | 0.0099 | 0.2480 | 6.0806 | 2.0840 | 6615.28 | 36.86 | LGM | 36.56 |
| AITR1392-8HG-FHT1-A-MH2-CTD-2 | 12.0000 | 1.5070 | 0.1200 | 0.0100 | 0.2477 | 6.0840 | 2.0642 | 6360.87 | 35.17 | LGM | 35.17 |
| AITR1392-8HG-FHT1-A-MH2-CTD-3 | 12.0000 | 1.5080 | 0.1190 | 0.0099 | 0.2486 | 6.0660 | 2.0891 | 6175.17 | 34.41 | LGM | 34.12 |
| AITR1392-8HG-FHT1-A-MH2-CTD-4 | | | | | | | | NT | | | |
| AITR1392-8HG-FHT1-B-MH1-CTD-1 | 12.0000 | 1.5080 | 0.1170 | 0.0098 | 0.2500 | 6.0320 | 2.1368 | 6487.25 | 36.77 | LGM | 35.85 |
| AITR1392-8HG-FHT1-B-MH1-CTD-2 | 12.0000 | 1.5080 | 0.1200 | 0.0100 | 0.2500 | 6.0320 | 2.0833 | 6458.20 | 35.69 | LGM | 35.69 |
| AITR1392-8HG-FHT1-B-MH1-CTD-3 | 12.0000 | 1.5080 | 0.1190 | 0.0099 | 0.2501 | 6.0296 | 2.1017 | 6181.58 | 34.45 | LGM | 34.16 |
| AITR1392-8HG-FHT1-B-MH1-CTD-4 | | | | | | | | NT | | | |
| AITR1392-8HG-FHT1-B-MH2-CTD-1 | 12.0000 | 1.5080 | 0.1200 | 0.0100 | 0.2501 | 6.0296 | 2.0842 | 6663.75 | 36.82 | LGM | 36.82 |
| AITR1392-8HG-FHT1-B-MH2-CTD-2 | 12.0000 | 1.5080 | 0.1210 | 0.0101 | 0.2500 | 6.0320 | 2.0661 | 6380.41 | 34.97 | LGM | 35.26 |
| AITR1392-8HG-FHT1-B-MH2-CTD-3 | 12.0000 | 1.5070 | 0.1210 | 0.0101 | 0.2510 | 6.0040 | 2.0744 | 6756.81 | 37.05 | LGM | 37.36 |
| AITR1392-8HG-FHT1-B-MH2-CTD-4 | 12.0000 | 1.5070 | 0.1190 | 0.0099 | 0.2502 | 6.0232 | 2.1025 | 6203.97 | 34.59 | LGM | 34.31 |
| AITR1392-8HG-FHT1-C-MH1-CTD-1 | 12.0000 | 1.5080 | 0.1130 | 0.0094 | 0.2500 | 6.0320 | 2.2124 | 6614.46 | 38.82 | LGM | 36.55 |
| AITR1392-8HG-FHT1-C-MH1-CTD-2 | 12.0000 | 1.5080 | 0.1120 | 0.0093 | 0.2502 | 6.0272 | 2.2339 | 6682.81 | 39.57 | LGM | 36.93 |
| AITR1392-8HG-FHT1-C-MH1-CTD-3 | 12.0000 | 1.5090 | 0.1130 | 0.0094 | 0.2500 | 6.0360 | 2.2124 | 5967.56 | 35.00 | LGM | 32.96 |
| AITR1392-8HG-FHT1-C-MH1-CTD-4 | 12.0000 | 1.5070 | 0.1100 | 0.0092 | 0.2502 | 6.0232 | 2.2745 | 6698.51 | 40.41 | LGM | 37.04 |
| AITR1392-8HG-FHT1-C-MH2-CTD-1 | 12.0000 | 1.5080 | 0.1160 | 0.0097 | 0.2520 | 5.9841 | 2.1724 | 6231.76 | 35.62 | LGM | 34.44 |
| AITR1392-8HG-FHT1-C-MH2-CTD-2 | 12.0000 | 1.5070 | 0.1160 | 0.0097 | 0.2529 | 5.9589 | 2.1802 | 6185.80 | 35.39 | LGM | 34.21 |
| AITR1392-8HG-FHT1-C-MH2-CTD-3 | 12.0000 | 1.5070 | 0.1150 | 0.0096 | 0.2506 | 6.0136 | 2.1791 | 6395.28 | 36.90 | LGM | 35.36 |
| AITR1392-8HG-FHT1-C-MH2-CTD-4 | 12.0000 | 1.5070 | 0.1140 | 0.0095 | 0.2502 | 6.0232 | 2.1947 | 6468.50 | 37.65 | LGM | 35.77 |
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| Minimum | 12.0000 | 1.5070 | 0.1100 | 0.0092 | 0.2477 | 5.9589 | 2.0642 | 5967.5590 | 34.4113 | | 32.9554 |
| Maximum | 12.0000 | 1.5090 | 0.1210 | 0.0101 | 0.2529 | 6.0840 | 2.2745 | 6756.8110 | 40.4084 | | 37.3635 |
| Average | 12.0000 | 1.5077 | 0.1173 | 0.0098 | 0.2502 | 6.0262 | 2.1340 | 6429.3306 | 36.3744 | | 35.5370 |
| Standard Deviation | 0.0000 | 0.0006 | 0.0033 | 0.0003 | 0.0011 | 0.0281 | 0.0640 | 222.1759 | 1.6928 | | 1.2313 |
| Coefficient of Variation (%) | 0.00 | 0.04 | 2.83 | 2.83 | 0.46 | 0.47 | 3.00 | 3.46 | 4.65 | | 3.46 |
| No. Specimens | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | | 21 |

**Notes:**
NT=Not Tested
NR=No Result
NA=Not Applicable
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | FHT1 | MH | RTD | | | | |

**Test Group: AITR1392-8HG-FHT1-MH-RTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01

Test Type: Filled-Hole Tension Layup 1 Condition: RTD #Plies: 12

Test Method: MP1118 (ASTMD6742)

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in | Width, in | Thickness, in | Cured Ply Thickness: | Diameter | Width/ Diameter | Diameter/ Thickness | Ultimate Load, lb | Ultimate Strength, ksi | Failure Mode | **Normalized** Ultimate Strength, |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AITR1392-8HG-FHT1-A-MH1-RTD-1 | 12.0000 | 1.5120 | 0.1170 | 0.0098 | 0.2509 | 6.0263 | 2.1444 | 5167.83 | 29.21 | LGM | 28.48 |
| AITR1392-8HG-FHT1-A-MH1-RTD-2 | 12.0000 | 1.5090 | 0.1190 | 0.0099 | 0.2505 | 6.0240 | 2.1050 | 5260.19 | 29.29 | LGM | 29.05 |
| AITR1392-8HG-FHT1-A-MH1-RTD-3 | 12.0000 | 1.5080 | 0.1190 | 0.0099 | 0.2502 | 6.0272 | 2.1025 | 5256.65 | 29.29 | LGM | 29.05 |
| AITR1392-8HG-FHT1-A-MH1-RTD-4 | | | | | | | | NT | | | |
| AITR1392-8HG-FHT1-A-MH2-RTD-1 | 12.0000 | 1.5080 | 0.1160 | 0.0097 | 0.2476 | 6.0905 | 2.1345 | 5246.36 | 29.99 | LGM | 28.99 |
| AITR1392-8HG-FHT1-A-MH2-RTD-2 | 12.0000 | 1.5080 | 0.1180 | 0.0098 | 0.2489 | 6.0587 | 2.1093 | 5310.50 | 29.84 | LGM | 29.35 |
| AITR1392-8HG-FHT1-A-MH2-RTD-3 | 12.0000 | 1.5080 | 0.1120 | 0.0093 | 0.2488 | 6.0611 | 2.2214 | 5076.60 | 30.06 | LGM | 28.05 |
| AITR1392-8HG-FHT1-A-MH2-RTD-4 | | | | | | | | NT | | | |
| Minimum | 12.0000 | 1.5080 | 0.1120 | 0.0093 | 0.2476 | 6.0240 | 2.1025 | 5076.5990 | 29.2126 | | 28.0537 |
| Maximum | 12.0000 | 1.5120 | 0.1190 | 0.0099 | 0.2509 | 6.0905 | 2.2214 | 5310.5010 | 30.0575 | | 29.3463 |
| Average | 12.0000 | 1.5088 | 0.1168 | 0.0097 | 0.2495 | 6.0479 | 2.1362 | 5219.6885 | 29.6152 | | 28.8286 |
| Standard Deviation | 0.0000 | 0.0016 | 0.0026 | 0.0002 | 0.0013 | 0.0267 | 0.0451 | 83.8192 | 0.3897 | | 0.4716 |
| Coefficient of Variation (%) | 0.00 | 0.11 | 2.26 | 2.26 | 0.50 | 0.44 | 2.11 | 1.61 | 1.32 | | 1.64 |
| No. Specimens | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | 6 |

**Notes:**
NT=Not Tested
NR=No Result
NA=Not Applicable
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | FHC1 | MH | RTD | | | | | | |

**Test Group: AITR1392-8HG-FHC1-MH-RTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01

Test Type: Filled-Hole Compression Layup 1 Condition: RTD #Plies: 12

Test Method: MP1119 (ASTMD6742)

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in | Width, in | Thickness, in | Cured Ply Thickness: | Diameter | Hole Edge-Side (f) | Hole Edge-End (g) | Width/ Diameter | Diameter/ Thickness | Ultimate Load, lb | Ultimate Strength, ksi | Failure Mode | **Normalized** Ultimate Strength, |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AITR1392-8HG-FHC1-A-MH1-RTD-1 | 12.0030 | 1.5080 | 0.1149 | 0.0096 | 0.2510 | 0.6260 | 5.878 | 6.0080 | 2.1845 | NT | | | |
| AITR1392-8HG-FHC1-A-MH1-RTD-2 | 11.9970 | 1.5080 | 0.1159 | 0.0097 | 0.2510 | 0.6280 | 5.868 | 6.0080 | 2.1657 | NT | | | |
| AITR1392-8HG-FHC1-A-MH1-RTD-3 | 11.9990 | 1.5080 | 0.1153 | 0.0096 | 0.2508 | 0.6280 | 5.872 | 6.0128 | 2.1752 | 10429.00 | 59.98 | AGF | 57.63 |
| AITR1392-8HG-FHC1-A-MH1-RTD-4 | 11.9980 | 1.5070 | 0.1160 | 0.0097 | 0.2508 | 0.6280 | 5.871 | 6.0088 | 2.1621 | NT | | | |
| AITR1392-8HG-FHC1-A-MH2-RTD-1 | 12.0020 | 1.5080 | 0.1161 | 0.0097 | 0.2510 | 0.6270 | 5.872 | 6.0080 | 2.1619 | 9650.00 | 55.12 | LGF | 53.33 |
| AITR1392-8HG-FHC1-A-MH2-RTD-2 | 12.0010 | 1.5070 | 0.1158 | 0.0097 | 0.2510 | 0.6270 | 5.87 | 6.0040 | 2.1675 | 9596.00 | 54.99 | LGF | 53.06 |
| AITR1392-8HG-FHC1-A-MH2-RTD-3 | 11.9970 | 1.5080 | 0.1144 | 0.0095 | 0.2507 | 0.6270 | 5.868 | 6.0152 | 2.1914 | 9909.00 | 57.44 | LGF | 54.76 |
| AITR1392-8HG-FHC1-A-MH2-RTD-4 | 12.0020 | 1.5080 | 0.1157 | 0.0096 | 0.2509 | 0.6280 | 5.875 | 6.0104 | 2.1685 | NT | | | |
| Minimum | 11.9970 | 1.5070 | 0.1144 | 0.0095 | 0.2507 | 0.6260 | 5.8680 | 6.0040 | 2.1619 | 9596.0000 | 54.9881 | | 53.0635 |
| Maximum | 12.0030 | 1.5080 | 0.1161 | 0.0097 | 0.2510 | 0.6280 | 5.8780 | 6.0152 | 2.1914 | 10429.0000 | 59.9808 | | 57.6315 |
| Average | 11.9999 | 1.5078 | 0.1155 | 0.0096 | 0.2509 | 0.6274 | 5.8718 | 6.0094 | 2.1721 | 9896.0000 | 56.8813 | | 54.6949 |
| Standard Deviation | 0.0024 | 0.0005 | 0.0006 | 0.0000 | 0.0001 | 0.0007 | 0.0034 | 0.0034 | 0.0108 | 380.6897 | 2.3530 | | 2.0945 |
| Coefficient of Variation (%) | 0.02 | 0.03 | 0.52 | 0.52 | 0.05 | 0.12 | 0.06 | 0.06 | 0.50 | 3.85 | 4.14 | | 3.83 |
| No. Specimens | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 4 | 4 | | 4 |

**Notes:**
NT=Not Tested or Excluded
NR=No Result
NA=Not Applicable
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | FHC1 | MH | ETW2 | | | | | | |

**Test Group: AITR1392-8HG-FHC1-MH-ETW2**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01
Test Type: Filled-Hole Compression Layup 1 Condition: ETW2 #Plies: 12
Test Method: MP1119 (ASTMD6742)

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

| Specimen ID | Length, in | Width, in | Thickness, in | Cured Ply Thickness: | Diameter | Hole Edge-Side (f) | Hole Edge-End (g) | Width/ Diameter | Diameter/ Thickness | Ultimate Load, lb | Ultimate Strength, ksi | Failure Mode | **Normalized** Ultimate Strength, |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AITR1392-8HG-FHC1-A-MH1-ETW2-1 | 12.0100 | 1.5090 | 0.1120 | 0.0093 | 0.2506 | 0.6270 | 5.874 | 6.0215 | 2.2375 | 6010.00 | 35.56 | LGO | 33.19 |
| AITR1392-8HG-FHC1-A-MH1-ETW2-2 | 12.0080 | 1.5100 | 0.1150 | 0.0096 | 0.2510 | 0.6280 | 5.87 | 6.0159 | 2.1826 | 6816.00 | 39.25 | LGF | 37.62 |
| AITR1392-8HG-FHC1-A-MH1-ETW2-3 | 12.0100 | 1.5090 | 0.1080 | 0.0090 | 0.2508 | 0.6270 | 5.873 | 6.0167 | 2.3222 | FM | | AAB | |
| AITR1392-8HG-FHC1-A-MH1-ETW2-4 | 12.0080 | 1.5090 | 0.1140 | 0.0095 | 0.2510 | 0.6280 | 5.87 | 6.0120 | 2.2018 | FM | | LGB | |
| AITR1392-8HG-FHC1-A-MH2-ETW2-1 | 12.0130 | 1.5080 | 0.1150 | 0.0096 | 0.2507 | 0.6270 | 5.875 | 6.0152 | 2.1800 | FM | | LWB | |
| AITR1392-8HG-FHC1-A-MH2-ETW2-2 | 12.0110 | 1.5080 | 0.1140 | 0.0095 | 0.2508 | 0.6270 | 5.874 | 6.0128 | 2.2000 | 6249.00 | 36.35 | LGF | 34.53 |
| AITR1392-8HG-FHC1-A-MH2-ETW2-3 | 12.0060 | 1.5090 | 0.1150 | 0.0096 | 0.2508 | 0.6270 | 5.869 | 6.0167 | 2.1809 | FM | | LAT | |
| AITR1392-8HG-FHC1-A-MH2-ETW2-4 | | | | | | | | | | NT | | | |
| AITR1392-8HG-FHC1-B-MH1-ETW2-1 | 12.0130 | 1.5070 | 0.1190 | 0.0099 | 0.2502 | 0.6250 | 5.877 | 6.0232 | 2.1025 | 6858.00 | 38.24 | LGF | 37.92 |
| AITR1392-8HG-FHC1-B-MH1-ETW2-2 | 12.0110 | 1.5080 | 0.1150 | 0.0096 | 0.2506 | 0.6270 | 5.876 | 6.0176 | 2.1791 | 6311.00 | 36.39 | LGF | 34.88 |
| AITR1392-8HG-FHC1-B-MH1-ETW2-3 | 12.0110 | 1.5080 | 0.1180 | 0.0098 | 0.2503 | 0.6270 | 5.874 | 6.0248 | 2.1212 | 6803.00 | 38.23 | LGF | 37.59 |
| AITR1392-8HG-FHC1-B-MH1-ETW2-4 | | | | | | | | | | NT | | | |
| AITR1392-8HG-FHC1-B-MH2-ETW2-1 | 12.0120 | 1.5090 | 0.1180 | 0.0098 | 0.2509 | 0.6270 | 5.875 | 6.0143 | 2.1263 | 6274.00 | 35.23 | LGF | 34.65 |
| AITR1392-8HG-FHC1-B-MH2-ETW2-2 | 12.0110 | 1.5080 | 0.1180 | 0.0098 | 0.2505 | 0.6260 | 5.872 | 6.0200 | 2.1229 | 6461.00 | 36.31 | LGF | 35.70 |
| AITR1392-8HG-FHC1-B-MH2-ETW2-3 | 12.0090 | 1.5080 | 0.1150 | 0.0096 | 0.2506 | 0.6260 | 5.871 | 6.0176 | 2.1791 | 6520.00 | 37.60 | LGF | 36.03 |
| AITR1392-8HG-FHC1-B-MH2-ETW2-4 | | | | | | | | | | NT | | | |
| AITR1392-8HG-FHC1-C-MH1-ETW2-1 | 12.0050 | 1.5070 | 0.1170 | 0.0098 | 0.2508 | 0.6260 | 5.867 | 6.0088 | 2.1436 | 6200.00 | 35.16 | LGF | 34.28 |
| AITR1392-8HG-FHC1-C-MH1-ETW2-2 | 12.0010 | 1.5090 | 0.1200 | 0.0100 | 0.2508 | 0.6260 | 5.877 | 6.0167 | 2.0900 | 6221.00 | 34.35 | MGF | 34.35 |
| AITR1392-8HG-FHC1-C-MH1-ETW2-3 | 12.0060 | 1.5080 | 0.1160 | 0.0097 | 0.2506 | 0.6260 | 5.869 | 6.0176 | 2.1603 | 5972.00 | 34.14 | LGF | 33.00 |
| AITR1392-8HG-FHC1-C-MH1-ETW2-4 | | | | | | | | | | NT | | | |
| AITR1392-8HG-FHC1-C-MH2-ETW2-1 | 12.0090 | 1.5090 | 0.1210 | 0.0101 | 0.2507 | 0.6250 | 5.871 | 6.0191 | 2.0719 | 6426.00 | 35.19 | LGF | 35.49 |
| AITR1392-8HG-FHC1-C-MH2-ETW2-2 | 12.0120 | 1.5090 | 0.1200 | 0.0100 | 0.2501 | 0.6260 | 5.876 | 6.0336 | 2.0842 | 7823.00 | 43.20 | LGF | 43.20 |
| AITR1392-8HG-FHC1-C-MH2-ETW2-3 | 12.0120 | 1.5090 | 0.1180 | 0.0098 | 0.2505 | 0.6220 | 5.874 | 6.0240 | 2.1229 | 7464.00 | 41.92 | LGF | 41.22 |
| AITR1392-8HG-FHC1-C-MH2-ETW2-4 | | | | | | | | | | NT | | | |
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| | | | | | | | | | | | | | |
| Minimum | 12.0010 | 1.5070 | 0.1080 | 0.0090 | 0.2501 | 0.6220 | 5.8670 | 6.0088 | 2.0719 | 5972.0000 | 34.1398 | | 33.0018 |
| Maximum | 12.0130 | 1.5100 | 0.1210 | 0.0101 | 0.2510 | 0.6280 | 5.8770 | 6.0336 | 2.3222 | 7823.0000 | 43.2019 | | 43.2019 |
| Average | 12.0094 | 1.5085 | 0.1162 | 0.0097 | 0.2506 | 0.6263 | 5.8728 | 6.0183 | 2.1584 | 6560.5333 | 37.1426 | | 36.2441 |
| Standard Deviation | 0.0031 | 0.0008 | 0.0031 | 0.0003 | 0.0002 | 0.0013 | 0.0029 | 0.0055 | 0.0601 | 520.1929 | 2.6605 | | 2.8686 |
| Coefficient of Variation (%) | 0.03 | 0.05 | 2.68 | 2.68 | 0.10 | 0.21 | 0.05 | 0.09 | 2.79 | 7.93 | 7.16 | | 7.91 |
| No. Specimens | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 15 | 15 | | 15 |

**Notes:**
NT=Not Tested or Excluded
NR=No Result
NA=Not Applicable
FM=Failure Mode Unacceptable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | PB1 | MH | RTD | | | | | | | | |

**Test Group: AITR1392-8HG-PB1-MH-RTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01

Test Type: Single Shear Pin Bearing Layup 1 Condition: RTD #Plies: 12

Test Method: MP1120 (ASTMD5961)

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

**Normalized**

| Specimen ID | Width, in. | Thickness, in. | Diameter | Hole Center-End (e) | Hole Edge-Side (g) | Hole Edge-End (f) | Hole-Edge/ Diameter (e/D) | Width/ Diameter | Diameter/ Thickness | Strength, ksi | | | | Cured Ply Thickness | Ultimate Strength, ksi | 2% Offset Strength, ksi |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Initial Peak | Ultimate | 2% Offset | 4% Offset | | | |
| AITR1392-8HG-PB1-A-MH1-RTD-1 | 1.5100 | 0.1210 | 0.2503 | 0.7514 | 0.6217 | 0.6262 | 3.0018 | 6.033 | 2.069 | 71.04 | 98.20 | 64.54 | 81.36 | 0.0101 | 99.01 | 65.07 |
| AITR1392-8HG-PB1-A-MH1-RTD-2 | 1.5100 | 0.1220 | 0.2500 | 0.7512 | 0.6217 | 0.6262 | 3.0048 | 6.040 | 2.049 | 74.15 | 102.98 | 67.17 | 80.41 | 0.0102 | 104.70 | 68.29 |
| AITR1392-8HG-PB1-A-MH1-RTD-3 | 1.5100 | 0.1180 | 0.2508 | 0.7516 | 0.6217 | 0.6262 | 2.9968 | 6.021 | 2.125 | 68.87 | 93.90 | 56.35 | 68.77 | 0.0098 | 92.34 | 55.41 |
| AITR1392-8HG-PB1-A-MH1-RTD-4 | 1.5100 | 0.1200 | 0.2501 | 0.7513 | 0.6217 | 0.6262 | 3.0038 | 6.038 | 2.084 | 70.16 | 97.69 | 68.32 | 82.64 | 0.0100 | 97.69 | 68.32 |
| AITR1392-8HG-PB1-A-MH2-RTD-1 | 1.5100 | 0.1210 | 0.2510 | 0.7517 | 0.6217 | 0.6262 | 2.9948 | 6.016 | 2.074 | 71.70 | 101.28 | 70.57 | 85.00 | 0.0101 | 102.12 | 71.16 |
| AITR1392-8HG-PB1-A-MH2-RTD-2 | 1.5100 | 0.1200 | 0.2503 | 0.7514 | 0.6217 | 0.6262 | 3.0018 | 6.033 | 2.086 | 71.14 | 90.86 | 67.92 | 76.35 | 0.0100 | 90.86 | 67.92 |
| AITR1392-8HG-PB1-A-MH2-RTD-3 | 1.5100 | 0.1200 | 0.2502 | 0.7513 | 0.6217 | 0.6262 | 3.0028 | 6.035 | 2.085 | 72.12 | 96.49 | 70.61 | 81.95 | 0.0100 | 96.49 | 70.61 |
| AITR1392-8HG-PB1-A-MH2-RTD-4 | 1.5100 | 0.1190 | 0.2508 | 0.7516 | 0.6217 | 0.6262 | 2.9968 | 6.021 | 2.108 | 71.37 | 95.89 | 80.22 | 88.09 | 0.0099 | 95.10 | 79.55 |
| AITR1392-8HG-PB1-B-MH1-RTD-1 | 1.5100 | 0.1100 | 0.2509 | 0.7517 | 0.6217 | 0.6262 | 2.9958 | 6.018 | 2.281 | 70.38 | 88.77 | 68.36 | 63.71 | 0.0092 | 81.37 | 62.66 |
| AITR1392-8HG-PB1-B-MH1-RTD-2 | 1.5100 | 0.1220 | 0.2510 | 0.7517 | 0.6217 | 0.6262 | 2.9948 | 6.016 | 2.057 | 79.92 | 106.13 | 77.86 | 91.83 | 0.0102 | 107.90 | 79.15 |
| AITR1392-8HG-PB1-B-MH1-RTD-3 | 1.5100 | 0.1190 | 0.2508 | 0.7516 | 0.6217 | 0.6262 | 2.9968 | 6.021 | 2.108 | 73.65 | 101.29 | 80.38 | 93.67 | 0.0099 | 100.45 | 79.71 |
| AITR1392-8HG-PB1-B-MH1-RTD-4 | 1.5100 | 0.1200 | 0.2508 | 0.7516 | 0.6217 | 0.6262 | 2.9968 | 6.021 | 2.090 | NT | | | | 0.0100 | | |
| AITR1392-8HG-PB1-B-MH2-RTD-1 | 1.5100 | 0.1220 | 0.2519 | 0.7522 | 0.6217 | 0.6262 | 2.9859 | 5.994 | 2.065 | 68.70 | 97.59 | 68.60 | 85.74 | 0.0102 | 99.21 | 69.75 |
| AITR1392-8HG-PB1-B-MH2-RTD-2 | 1.5100 | 0.1210 | 0.2513 | 0.7519 | 0.6217 | 0.6262 | 2.9918 | 6.009 | 2.077 | 72.34 | 97.74 | 72.74 | 81.96 | 0.0101 | 98.55 | 73.35 |
| AITR1392-8HG-PB1-B-MH2-RTD-3 | 1.5100 | 0.1220 | 0.2511 | 0.7518 | 0.6217 | 0.6262 | 2.9938 | 6.014 | 2.058 | 71.32 | 107.89 | 63.65 | 77.58 | 0.0102 | 109.68 | 64.71 |
| AITR1392-8HG-PB1-B-MH2-RTD-4 | 1.5100 | 0.1200 | 0.2508 | 0.7516 | 0.6217 | 0.6262 | 2.9968 | 6.021 | 2.090 | NT | | | | 0.0100 | | |
| AITR1392-8HG-PB1-C-MH1-RTD-1 | 1.5100 | 0.1210 | 0.2508 | 0.7516 | 0.6217 | 0.6262 | 2.9968 | 6.021 | 2.073 | 67.66 | 96.02 | 62.37 | 75.44 | 0.0101 | 96.82 | 62.89 |
| AITR1392-8HG-PB1-C-MH1-RTD-2 | 1.5100 | 0.1210 | 0.2512 | 0.7518 | 0.6217 | 0.6262 | 2.9928 | 6.011 | 2.076 | 70.39 | 94.59 | 62.49 | 69.70 | 0.0101 | 95.38 | 63.01 |
| AITR1392-8HG-PB1-C-MH1-RTD-3 | 1.5100 | 0.1190 | 0.2500 | 0.7512 | 0.6217 | 0.6262 | 3.0048 | 6.040 | 2.101 | 67.22 | 97.85 | 59.52 | 65.18 | 0.0099 | 97.03 | 59.03 |
| AITR1392-8HG-PB1-C-MH1-RTD-4 | 1.5100 | 0.1200 | 0.2508 | 0.7516 | 0.6217 | 0.6262 | 2.9968 | 6.021 | 2.090 | NT | | | | 0.0100 | | |
| AITR1392-8HG-PB1-C-MH2-RTD-1 | 1.5100 | 0.1170 | 0.2506 | 0.7515 | 0.6217 | 0.6262 | 2.9988 | 6.026 | 2.142 | 75.80 | 102.05 | 67.41 | 85.20 | 0.0098 | 99.49 | 65.73 |
| AITR1392-8HG-PB1-C-MH2-RTD-2 | 1.5100 | 0.1180 | 0.2510 | 0.7517 | 0.6217 | 0.6262 | 2.9948 | 6.016 | 2.127 | 68.07 | 102.91 | 65.38 | 81.68 | 0.0098 | 101.20 | 64.29 |
| AITR1392-8HG-PB1-C-MH2-RTD-3 | 1.5100 | 0.1180 | 0.2510 | 0.7517 | 0.6217 | 0.6262 | 2.9948 | 6.016 | 2.127 | 72.76 | 102.03 | 65.13 | 79.55 | 0.0098 | 100.33 | 64.04 |
| AITR1392-8HG-PB1-C-MH2-RTD-4 | 1.5100 | 0.1200 | 0.2508 | 0.7516 | 0.6217 | 0.6262 | 2.9968 | 6.021 | 2.090 | NT | | | | 0.0100 | | |
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| | | | | | | | | | | | | | | | | |
| Minimum | 1.5100 | 0.1100 | 0.2500 | 0.7512 | 0.6217 | 0.6262 | 2.9859 | 5.9944 | 2.0492 | 67.2200 | 88.7713 | 56.3460 | 63.7060 | 0.0092 | 81.3737 | 55.4069 |
| Maximum | 1.5100 | 0.1220 | 0.2519 | 0.7522 | 0.6217 | 0.6262 | 3.0048 | 6.0400 | 2.2809 | 79.9150 | 107.8860 | 80.3810 | 93.6710 | 0.0102 | 109.6841 | 79.7112 |
| Average | 1.5100 | 0.1196 | 0.2508 | 0.7516 | 0.6217 | 0.6262 | 2.9972 | 6.0217 | 2.0971 | 71.4377 | 98.6077 | 67.9800 | 79.7901 | 0.0100 | 98.2870 | 67.7331 |
| Standard Deviation | 0.0000 | 0.0025 | 0.0004 | 0.0002 | 0.0000 | 0.0000 | 0.0044 | 0.0106 | 0.0459 | 2.9719 | 4.7864 | 6.2959 | 8.1214 | 0.0002 | 6.0741 | 6.5488 |
| Coefficient of Variation (%) | 0.00 | 2.07 | 0.18 | 0.03 | 0.00 | 0.00 | 0.15 | 0.18 | 2.19 | 4.16 | 4.85 | 9.26 | 10.18 | 2.07 | 6.18 | 9.67 |
| No. Specimens | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 20 | 20 | 20 | 20 | 24 | 20 | 20 |

**Notes:**
NT=Not Tested
NR=No Result
NA=Not Applicable
GE=Gage Error

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | PB1 | MH | ETW2 | | | | | | | | |

**Test Group: AITR1392-8HG-PB1-MH-ETW2**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01

Test Type: Single Shear Pin Bearing Layup 1 Condition: ETW2 #Plies: 12

Test Method: MP1120 (ASTMD5961)

**ACG, Inc. Material & Process Laboratory Report**

**Normalized**

| Specimen ID | Width, in. | Thickness, in. | Diameter | Hole Center-End (e) | Hole Edge-Side (g) | Hole Edge-End (f) | Hole-Edge/ Diameter (e/D) | Width/ Diameter | Diameter/ Thickness | Strength, ksi | | | | Cured Ply Thickness | Ultimate Strength, ksi | 2% Offset Strength, ksi |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Initial Peak | Ultimate | 2% Offset | 4% Offset | | | |
| AITR1392-8HG-PB1-A-MH1-ETW2-1 | 1.5090 | 0.1200 | 0.2503 | 0.7582 | 0.6240 | 0.6330 | 3.0290 | 6.029 | 2.086 | 44.52 | 64.72 | 40.36 | 50.46 | 0.0100 | 64.72 | 40.36 |
| AITR1392-8HG-PB1-A-MH1-ETW2-2 | 1.5110 | 0.1200 | 0.2506 | 0.7543 | 0.6210 | 0.6290 | 3.0100 | 6.030 | 2.088 | 44.47 | 62.95 | 39.94 | 47.41 | 0.0100 | 62.95 | 39.94 |
| AITR1392-8HG-PB1-A-MH1-ETW2-3 | 1.5100 | 0.1200 | 0.2504 | 0.7542 | 0.6240 | 0.6290 | 3.0120 | 6.030 | 2.087 | 46.83 | 64.76 | 49.68 | 58.50 | 0.0100 | 64.76 | 49.68 |
| AITR1392-8HG-PB1-A-MH1-ETW2-4 | 1.5100 | 0.1180 | 0.2503 | 0.7532 | 0.6250 | 0.6280 | 3.0090 | 6.033 | 2.121 | 47.46 | 75.23 | 48.19 | 58.02 | 0.0098 | 73.98 | 47.38 |
| AITR1392-8HG-PB1-A-MH2-ETW2-1 | 1.5090 | 0.1180 | 0.2509 | 0.7505 | 0.6210 | 0.6250 | 2.9910 | 6.014 | 2.126 | 54.58 | 69.17 | 56.05 | 64.86 | 0.0098 | 68.02 | 55.12 |
| AITR1392-8HG-PB1-A-MH2-ETW2-2 | 1.5090 | 0.1190 | 0.2504 | 0.7542 | 0.6210 | 0.6290 | 3.0120 | 6.026 | 2.104 | 48.67 | 65.98 | 48.68 | 59.58 | 0.0099 | 65.43 | 48.27 |
| AITR1392-8HG-PB1-A-MH2-ETW2-3 | 1.5100 | 0.1150 | 0.2508 | 0.7534 | 0.6210 | 0.6280 | 3.0040 | 6.021 | 2.181 | 47.01 | 66.40 | 48.60 | 61.59 | 0.0096 | 63.63 | 46.58 |
| AITR1392-8HG-PB1-A-MH2-ETW2-4 | 1.5100 | 0.1200 | 0.2503 | 0.7532 | 0.6210 | 0.6280 | 3.0090 | 6.033 | 2.086 | NT | | | | 0.0100 | | |
| AITR1392-8HG-PB1-B-MH1-ETW2-1 | 1.5090 | 0.1228 | 0.2508 | 0.7494 | 0.6200 | 0.6240 | 2.9880 | 6.017 | 2.042 | 46.34 | 61.82 | 49.67 | 56.71 | 0.0102 | 63.26 | 50.83 |
| AITR1392-8HG-PB1-B-MH1-ETW2-2 | 1.5100 | 0.1222 | 0.2509 | 0.7495 | 0.6210 | 0.6240 | 2.9870 | 6.018 | 2.053 | 46.42 | 59.85 | 47.51 | 57.61 | 0.0102 | 60.95 | 48.39 |
| AITR1392-8HG-PB1-B-MH1-ETW2-3 | 1.5100 | 0.1237 | 0.2502 | 0.7491 | 0.6200 | 0.6240 | 2.9940 | 6.035 | 2.023 | 47.85 | 64.65 | 47.55 | 54.83 | 0.0103 | 66.65 | 49.02 |
| AITR1392-8HG-PB1-B-MH1-ETW2-4 | 1.5090 | 0.1189 | 0.2506 | 0.7483 | 0.6230 | 0.6230 | 2.9860 | 6.022 | 2.108 | 48.24 | 65.38 | 50.60 | 58.10 | 0.0099 | 64.78 | 50.14 |
| AITR1392-8HG-PB1-B-MH2-ETW2-1 | 1.5100 | 0.1184 | 0.2505 | 0.7553 | 0.6220 | 0.6300 | 3.0150 | 6.028 | 2.116 | 49.17 | 65.07 | 47.06 | 52.52 | 0.0099 | 64.20 | 46.43 |
| AITR1392-8HG-PB1-B-MH2-ETW2-2 | 1.5100 | 0.1198 | 0.2508 | 0.7414 | 0.6270 | 0.6160 | 2.9561 | 6.021 | 2.093 | 46.16 | 64.63 | 44.43 | 50.94 | 0.0100 | 64.53 | 44.36 |
| AITR1392-8HG-PB1-B-MH2-ETW2-3 | 1.5100 | 0.1222 | 0.2505 | 0.7303 | 0.6260 | 0.6050 | 2.9152 | 6.028 | 2.050 | NT | | | | 0.0102 | | |
| AITR1392-8HG-PB1-B-MH2-ETW2-4 | 1.5100 | 0.1224 | 0.2512 | 0.7546 | 0.6200 | 0.6290 | 3.0040 | 6.011 | 2.052 | 43.82 | 64.49 | 45.50 | 57.23 | 0.0102 | 65.78 | 46.41 |
| AITR1392-8HG-PB1-C-MH1-ETW2-1 | 1.5100 | 0.1199 | 0.2504 | 0.7542 | 0.6220 | 0.6290 | 3.0120 | 6.030 | 2.088 | 44.21 | 65.45 | 44.00 | 56.13 | 0.0100 | 65.40 | 43.96 |
| AITR1392-8HG-PB1-C-MH1-ETW2-2 | 1.5100 | 0.1204 | 0.2506 | 0.7553 | 0.6200 | 0.6300 | 3.0140 | 6.026 | 2.081 | 44.65 | 67.71 | 48.65 | 59.73 | 0.0100 | 67.94 | 48.81 |
| AITR1392-8HG-PB1-C-MH1-ETW2-3 | 1.5100 | 0.1151 | 0.2510 | 0.7545 | 0.6200 | 0.6290 | 3.0060 | 6.016 | 2.181 | 47.80 | 71.62 | 50.09 | 66.19 | 0.0096 | 68.69 | 48.04 |
| AITR1392-8HG-PB1-C-MH1-ETW2-4 | | | 0.0000 | | | | | | | NT | | | | #VALUE! | | |
| AITR1392-8HG-PB1-C-MH2-ETW2-1 | 1.5090 | 0.1176 | 0.2507 | 0.7534 | 0.6210 | 0.6280 | 3.0050 | 6.019 | 2.132 | 46.82 | 64.34 | 48.52 | 59.33 | 0.0098 | 63.06 | 47.55 |
| AITR1392-8HG-PB1-C-MH2-ETW2-2 | 1.5100 | 0.1192 | 0.2505 | 0.7493 | 0.6210 | 0.6240 | 2.9910 | 6.028 | 2.102 | 46.47 | 64.10 | 50.27 | 60.41 | 0.0099 | 63.67 | 49.94 |
| AITR1392-8HG-PB1-C-MH2-ETW2-3 | 1.5100 | 0.1198 | 0.2504 | 0.7542 | 0.6190 | 0.6290 | 3.0120 | 6.030 | 2.090 | 46.49 | 66.70 | 42.42 | 54.06 | 0.0100 | 66.59 | 42.35 |
| AITR1392-8HG-PB1-C-MH2-ETW2-4 | 1.5080 | 0.1126 | 0.2506 | 0.7543 | 0.6190 | 0.6290 | 3.0100 | 6.018 | 2.226 | NT | | | | 0.0094 | | |
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| Minimum | 1.5080 | 0.1126 | 0.0000 | 0.7303 | 0.6190 | 0.6050 | 2.9152 | 6.0111 | 2.0226 | 43.8170 | 59.8500 | 39.9440 | 47.4090 | #VALUE! | 60.9473 | 39.9440 |
| Maximum | 1.5110 | 0.1237 | 0.2512 | 0.7582 | 0.6270 | 0.6330 | 3.0290 | 6.0352 | 2.2256 | 54.5750 | 75.2318 | 56.0510 | 66.1880 | #VALUE! | 73.9779 | 55.1168 |
| Average | 1.5097 | 0.1193 | 0.2402 | 0.7515 | 0.6217 | 0.6262 | 2.9987 | 6.0244 | 2.1007 | 46.8987 | 65.7522 | 47.3885 | 57.2094 | #VALUE! | 65.4496 | 47.1774 |
| Standard Deviation | 0.0006 | 0.0026 | 0.0512 | 0.0058 | 0.0022 | 0.0058 | 0.0234 | 0.0068 | 0.0472 | 2.3609 | 3.3309 | 3.7808 | 4.6352 | #VALUE! | 2.7744 | 3.6321 |
| Coefficient of Variation (%) | 0.04 | 2.19 | 21.30 | 0.77 | 0.35 | 0.92 | 0.78 | 0.11 | 2.24 | 5.03 | 5.07 | 7.98 | 8.10 | #VALUE! | 4.24 | 7.70 |
| No. Specimens | 23 | 23 | 24 | 23 | 23 | 23 | 23 | 23 | 23 | 20 | 20 | 20 | 20 | 23 | 20 | 20 |

**Notes:**

NT=Not Tested

NR=No Result

NA=Not Applicable

GE=Gage Error

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | ILT1 | MH | RTD | | | | | | |

**Test Group: AITR1392-8HG-ILT1-MH-RTD**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01

Test Type: Interlaminar Tension Layup 1 Condition: RTD #Plies: 16

Test Method: MP1122 (ASTMD6415)

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

**Normalized**

| Specimen ID | ASTM D6415 Spec. Dimensions* | | | | | Ultimate (peak)** | | | | | | Failure | Cured Ply | Ultimate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Thick, In. | Width, in. | $r_{inner}$, in | $r_{outer}$, in | $Angle_i$, Deg | $d_y$, in | Φ, deg | Δ, in | P, lb | CBS, in-lb/in | $\sigma_r$, ksi | Mode | Thickness | Strength, ksi |
| AITR1392-8HG-ILT1-A-MH1-RTD-1 | 0.1650 | 1.009 | 0.2500 | 0.4150 | 89.0000 | 0.6392 | 11.9468 | 0.596 | 771.000 | 240.08 | 6.78 | LLT | 0.0103 | 6.99 |
| AITR1392-8HG-ILT1-A-MH1-RTD-2 | 0.1700 | 1.008 | 0.2500 | 0.4200 | 89.0000 | 0.6626 | 13.6610 | 0.580 | 771.000 | 250.26 | 6.81 | ILT | 0.0106 | 7.24 |
| AITR1392-8HG-ILT1-A-MH1-RTD-3 | 0.1630 | 1.000 | 0.2500 | 0.4130 | 89.0000 | 0.6329 | 11.5251 | 0.599 | 848.000 | 263.65 | 7.55 | ILT | 0.0102 | 7.69 |
| AITR1392-8HG-ILT1-A-MH1-RTD-4 | 0.1620 | 1.004 | 0.2500 | 0.4120 | 89.0000 | 0.6246 | 10.8314 | 0.606 | 921.000 | 280.73 | 8.10 | ILT | 0.0101 | 8.20 |
| AITR1392-8HG-ILT1-A-MH1-RTD-5 | 0.1680 | 1.008 | 0.2500 | 0.4180 | 89.0000 | 0.6338 | 11.2116 | 0.606 | 901.000 | 276.41 | 7.63 | ILT | 0.0105 | 8.02 |
| AITR1392-8HG-ILT1-A-MH1-RTD-6 | 0.1680 | 1.008 | 0.2500 | 0.4180 | 90.0000 | 0.6498 | 12.6719 | 0.605 | 898.000 | 284.78 | 7.87 | ILT | 0.0105 | 8.26 |
| AITR1392-8HG-ILT1-A-MH1-RTD-7 | 0.1650 | 1.008 | 0.2500 | 0.4150 | 89.0000 | 0.6269 | 10.8063 | 0.608 | 907.000 | 275.47 | 7.77 | LLT | 0.0103 | 8.02 |
| Minimum | 0.1620 | 1.0000 | 0.2500 | 0.4120 | 89.0000 | 0.6246 | 10.8063 | 0.5795 | 771.0000 | 240.08 | 6.78 | | 0.0101 | 6.9876 |
| Maximum | 0.1700 | 1.0087 | 0.2500 | 0.4200 | 90.0000 | 0.6626 | 13.6610 | 0.6082 | 921.0000 | 284.78 | 8.10 | | 0.0106 | 8.2590 |
| Average | 0.1659 | 1.0064 | 0.2500 | 0.4159 | 89.1429 | 0.6386 | 11.8077 | 0.5999 | 859.5714 | 267.34 | 7.50 | | 0.0104 | 7.7734 |
| Standard Deviation | 0.0029 | 0.0033 | 0.0000 | 0.0029 | 0.3780 | 0.0135 | 1.0482 | 0.0100 | 64.6010 | 16.74 | 0.51 | | 0.0002 | 0.4907 |
| Coefficient of Variation (%) | 1.76 | 0.32 | 0.00 | 0.70 | 0.42 | 2.11 | 8.88 | 1.66 | 7.52 | 6.26 | 6.85 | | 1.76 | 6.31 |
| No. Specimens | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | 7 | 7 |

**Notes:**
NT=Not Tested
NR=No Result
NA=Not Applicable

| Input: | Test Plan Prefix | Test Plan # | Material | Test | Cure Cycle | Condition | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AITR | 1392 | 8HG | ILT1 | MH | ETW2 | | | | | | |

**Test Group: AITR1392-8HG-ILT1-MH-ETW2**

**Material:** **MTM45-1/GF0103-35%RW** Normalization: NA Cured Ply Thickness: 0.01

Test Type: Interlaminar Tension Layup 1 Condition: ETW2 #Plies: 16

Test Method: MP1122 (ASTMD6415)

**ACG, Inc.**
**Material & Process**
**Laboratory Report**

**Normalized**

| Specimen ID | ASTM D6415 Spec. Dimensions* | | | | | Ultimate (peak)** | | | | | | Failure | Cured Ply | Ultimate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Thick, In. | Width, in. | $r_{inner}$, in | $r_{outer}$, in | $Angle_i$, Deg | $d_y$, in | Φ, deg | Δ, in | P, lb | CBS, in-lb/in | $\sigma_r$, ksi | Mode | Thickness | Strength, ksi |
| AITR1392-8HG-ILT1-A-MH1-ETW2-1 | 0.1780 | 1.009 | 0.2500 | 0.4280 | 90.0000 | 1.0024 | 35.2970 | 0.266 | 134.000 | 80.55 | 2.08 | ILT | 0.0111 | 2.31 |
| AITR1392-8HG-ILT1-A-MH1-ETW2-2 | 0.1820 | 1.009 | 0.2500 | 0.4320 | 90.0000 | 0.9925 | 34.6206 | 0.282 | 133.000 | 78.35 | 1.96 | ILT | 0.0114 | 2.23 |
| AITR1392-8HG-ILT1-A-MH1-ETW2-3 | 0.1780 | 1.002 | 0.2500 | 0.4280 | 90.0000 | 0.9645 | 33.4299 | 0.304 | 153.000 | 86.96 | 2.24 | ILT | 0.0111 | 2.49 |
| AITR1392-8HG-ILT1-A-MH1-ETW2-4 | 0.1720 | 1.009 | 0.2500 | 0.4220 | 90.0000 | 0.9640 | 33.7115 | 0.296 | 150.000 | 85.10 | 2.28 | ILT | 0.0108 | 2.46 |
| AITR1392-8HG-ILT1-A-MH1-ETW2-5 | 0.1810 | 1.005 | 0.2500 | 0.4310 | 90.0000 | 0.9951 | 34.7957 | 0.278 | 131.000 | 77.88 | 1.97 | ILT | 0.0113 | 2.22 |
| AITR1392-8HG-ILT1-A-MH1-ETW2-6 | 0.1740 | 1.005 | 0.2500 | 0.4240 | 90.0000 | 0.9872 | 34.7586 | 0.276 | 132.000 | 77.99 | 2.07 | ILT | 0.0109 | 2.25 |
| AITR1392-8HG-ILT1-A-MH1-ETW2-7 | 0.1860 | 1.009 | 0.2500 | 0.4360 | 91.0000 | 1.0046 | 35.0129 | 0.291 | 148.000 | 88.61 | 2.16 | ILT | 0.0116 | 2.52 |
| Minimum | 0.1720 | 1.0020 | 0.2500 | 0.4220 | 90.0000 | 0.9640 | 33.4299 | 0.2661 | 131.0000 | 77.88 | 0.00 | | 0.0108 | 2.2244 |
| Maximum | 0.1860 | 1.0090 | 0.2500 | 0.4360 | 91.0000 | 1.0046 | 35.2970 | 0.3040 | 153.0000 | 88.61 | 0.00 | | 0.0116 | 2.5161 |
| Average | 0.1787 | 1.0069 | 0.2500 | 0.4287 | 90.1429 | 0.9872 | 34.5180 | 0.2846 | 140.1429 | 82.21 | 0.00 | | 0.0112 | 2.3540 |
| Standard Deviation | 0.0048 | 0.0029 | 0.0000 | 0.0048 | 0.3780 | 0.0167 | 0.6870 | 0.0131 | 9.6855 | 4.58 | 0.00 | | 0.0003 | 0.1295 |
| Coefficient of Variation (%) | 2.68 | 0.28 | 0.00 | 1.12 | 0.42 | 1.69 | 1.99 | 4.59 | 6.91 | 5.57 | #DIV/0! | | 2.68 | 5.50 |
| No. Specimens | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | 7 | 7 |

**Notes:**
NT=Not Tested
NR=No Result
NA=Not Applicable

# Laminate Compression After Impact Properties (CAI) -- (RTD) Summary

| Specimen Number | ACG Code | ACG Batch # | ACG Cure Cycle | Prepreg Lot # | Cure Cycle Batch # | Measured Impact Energy (in-lbf) | Strength [ksi] | Avg. Specimen Thickn. [in] | Failure Mode | Normalizing | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Cured Ply Thickness | Strength, ksi |
| CDKA111A | AITR1392-8HG-CAI1-A-MH1-RTD-1 | A | MH1 | 1 | 1 | 249.21 | 23.081 | 0.158 | LGM/ LAB | 0.00985 | 22.734 |
| CDKA112A | AITR1392-8HG-CAI1-A-MH1-RTD-2 | A | MH1 | 1 | 1 | 248.98 | 22.681 | 0.165 | LGM/LAB | 0.010333333 | 23.438 |
| CDKA113A | AITR1392-8HG-CAI1-A-MH1-RTD-3 | A | MH1 | 1 | 1 | 249.24 | 21.013 | 0.163 | LAB | 0.010166667 | 21.363 |
| CDKA114A | AITR1392-8HG-CAI1-A-MH1-RTD-4 | A | MH1 | 1 | 1 | 249.30 | 22.845 | 0.164 | LGM/ LAB | 0.010252083 | 23.421 |
| CDKA115A | AITR1392-8HG-CAI1-A-MH1-RTD-5 | A | MH1 | 1 | 1 | 248.74 | 22.725 | 0.160 | LGM/ LAB | 0.010028125 | 22.789 |
| CDKA116A | AITR1392-8HG-CAI1-A-MH1-RTD-6 | A | MH1 | 1 | 1 | 249.19 | 22.656 | 0.160 | LAB | 0.009982292 | 22.616 |
| CDKA117A | AITR1392-8HG-CAI1-A-MH1-RTD-7 | A | MH1 | 1 | 1 | 249.30 | 22.882 | 0.164 | LGM/ LAB | 0.010244792 | 23.442 |

| | |
|---|---|
| **Average** | **22.555** |
| **Standard Dev.** | **0.695** |
| **Coeff. of Var. [%]** | **3.083** |
| **Min.** | **21.013** |
| **Max.** | **23.081** |
| **Number of Spec.** | **7** |