

DMA Results Summary		
Log Scale		
	T <sub>g</sub> [°C]	T <sub>g</sub> [°F]
	187.2	368.96
	187.34	369.21
	183.32	361.98
	182.13	359.83
	189.4	372.92
	189.21	372.58
	185.1	365.18
	184.95	364.91
	190.58	375.04
	190.28	374.50
	189.74	373.53
	189.8	373.64
	199.86	391.75
	199.85	391.73
	195.96	384.73
	196.47	385.65
	195.69	384.24
	194.76	382.57
	190.57	375.03
	190.22	374.40
	191.33	376.39
	191.28	376.30
	197.4	387.32
	197.09	386.76
	188.52	371.34
	188.08	370.54
	189.73	373.51
	189.69	373.44
	186.72	368.10
	186.31	367.36
Average	190.62	375.11
Standard Deviation	4.65	8.37
Coefficient of Variation (%)	2.44	2.23
Minimum	182.13	359.83
Maximum	199.86	391.75
No. Specimens	30	30



<b>Input:</b>	Test Plan Prefix		Test Plan #	Material	Test	Cure Cycle	Condition						
	AITR		1392	PWC1	WT	MH	RTD						

**Test Group: AITR1392-PWC1-WT-MH-RTD**

<b>Material:</b>	<u>MTM45-1/CF0525-36%RW</u>	Normalization:	Cured Ply Thickness:	0.0079	#Plies:	14
Test Type:	<u>Warp Tensile</u>	Condition:	<u>RTD</u>			
Test Method:	<u>MP1112 (ASTMD3039)</u>	Modulus/Poisson's Range:	<u>Chord 0.1% to 0.3%</u>			

<b>ACG, Inc.</b> <b>Material &amp; Process</b> <b>Laboratory Report</b>		

Specimen ID	Batch	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-PWC1-WT-A-MH1-RTD-1	1	10.072	1.0081	0.1125	0.0080	14860.00	LAB	131.028	133.278	9.07	9.227	Not Tested
AITR1392-PWC1-WT-A-MH1-RTD-2	1	10.058	1.0074	0.1133	0.0081	15768.00	LAT	138.148	141.521	8.62	8.832	Not Tested
AITR1392-PWC1-WT-A-MH1-RTD-3	1	10.076	1.0059	0.1121	0.0080	15565.00	LGB/LAT	138.035	139.907	9.04	9.165	Not Tested
AITR1392-PWC1-WT-A-MH1-RTD-4	1	10.070	1.0078	0.1119	0.0080	15169.00	LAB	134.509	136.090	9.05	9.155	Not Tested
AITR1392-PWC1-WT-A-MH2-RTD-1	1	10.045	1.0045	0.1133	0.0081	15071.00	LAB	132.423	135.655	9.07	9.288	Not Tested
AITR1392-PWC1-WT-A-MH2-RTD-2	1	10.048	1.0048	0.1117	0.0080	15817.00	LAB	140.926	142.328	9.17	9.266	Not Tested
AITR1392-PWC1-WT-A-MH2-RTD-3	1	10.048	1.0036	0.1133	0.0081	15788.00	LAB	138.847	142.237	9.03	9.250	Not Tested
AITR1392-PWC1-WT-A-MH2-RTD-4	1	10.052	1.0047	0.1105	0.0079	14674.00	LAB	132.175	132.056	9.38	9.370	Not Tested
AITR1392-PWC1-WT-B-MH1-RTD-1	2	10.039	1.0071	0.1146	0.0082	14901.00	LAB	129.110	133.779	8.89	9.214	Not Tested
AITR1392-PWC1-WT-B-MH1-RTD-2	2	10.048	1.0077	0.1148	0.0082	14249.00	LAB	123.172	127.849	9.09	9.440	Not Tested
AITR1392-PWC1-WT-B-MH1-RTD-3	2	10.047	1.0078	0.1147	0.0082	13862.00	LAB	119.919	124.364	8.78	9.108	Not Tested
AITR1392-PWC1-WT-B-MH1-RTD-4	2	10.051	1.0077	0.1124	0.0080	NT				NT		NT
AITR1392-PWC1-WT-B-MH2-RTD-1	2	10.020	1.0083	0.1121	0.0080	14635.00	LAB	129.478	131.234	9.08	9.201	Not Tested
AITR1392-PWC1-WT-B-MH2-RTD-2	2	10.006	1.0085	0.1124	0.0080	14856.00	LAB	131.057	133.190	8.90	9.042	Not Tested
AITR1392-PWC1-WT-B-MH2-RTD-3	2	10.024	1.0081	0.1127	0.0081	14636.00	LAT	128.823	131.269	9.20	9.374	Not Tested
AITR1392-PWC1-WT-B-MH2-RTD-4	2	10.007	1.0082	0.1152	0.0082	NT				NT		NT
AITR1392-PWC1-WT-C-MH1-RTD-1	3	10.055	0.9969	0.1160	0.0083	15039.00	LAT	130.050	136.399	9.17	9.613	Not Tested
AITR1392-PWC1-WT-C-MH1-RTD-2	3	10.048	0.9982	0.1153	0.0082	13136.00	LAB/LAT	114.134	118.985	8.95	9.328	Not Tested
AITR1392-PWC1-WT-C-MH1-RTD-3	3	10.059	0.9979	0.1170	0.0084	14485.00	LAB/LAT	124.064	131.243	8.86	9.373	Not Tested
AITR1392-PWC1-WT-C-MH1-RTD-4	3	10.047	0.9978	0.1155	0.0083	13922.00	LAT	120.803	126.155	9.26	9.671	Not Tested
AITR1392-PWC1-WT-C-MH2-RTD-1	3	10.058	1.0079	0.1155	0.0083	14417.00	LAT	123.844	129.331	9.17	9.575	Not Tested
AITR1392-PWC1-WT-C-MH2-RTD-2	3	10.056	1.0081	0.1137	0.0081	13894.00	LAT	121.217	124.614	9.21	9.467	Not Tested
AITR1392-PWC1-WT-C-MH2-RTD-3	3	10.062	1.0081	0.1154	0.0082	15151.00	LGT	130.236	135.888	9.11	9.510	Not Tested
AITR1392-PWC1-WT-C-MH2-RTD-4	3	10.058	1.0077	0.1143	0.0082	14198.00	LAT	123.268	127.392	9.06	9.364	Not Tested
Minimum		10.0060	0.9969	0.1105	0.0079	13136.00		114.134	118.985	8.622	8.832	
Maximum		10.0760	1.0085	0.1170	0.0084	15817.00		140.926	142.328	9.379	9.671	
Average		10.0481	1.0055	0.1138	0.0081	14731.50		128.876	132.489	9.053	9.311	
Standard Deviation		0.0181	0.0038	0.0016	0.0001	692.09		6.958	6.148	0.169	0.196	
Coefficient of Variation (%)		0.18	0.38	1.45	1.45	4.70		5.40	4.64	1.87	2.11	
No. Specimens		24	24	24	24	22		22	22	22	22	

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

<b>Input:</b>	Test Plan Prefix		Test Plan #	Material	Test	Cure Cycle	Condition					
	AITR		1392	PWC1	WT	MH	ETW					

**Test Group: AITR1392-PWC1-WT-MH-ETW**

Material: **MTM45-1/CF0525-36%RW** Normalization: Cured Ply Thickness: 0.0079 #Plies: 14  
 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	Batch	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-PWC1-WT-A-MH1-ETW-1	1	10.081	1.0080	0.1121	0.0080	15145.00	LAB/LAT	134.030	135.848	9.01	9.136	Not Tested
AITR1392-PWC1-WT-A-MH1-ETW-2	1	10.076	1.0075	0.1147	0.0082	15039.00	AGB/LAT	130.140	134.964	9.03	9.363	Not Tested
AITR1392-PWC1-WT-A-MH1-ETW-3	1	10.062	1.0087	0.1143	0.0082	13912.00	LGB/LAT	120.665	124.702	9.07	9.373	Not Tested
AITR1392-PWC1-WT-A-MH1-ETW-4	1	10.099	1.0078	0.1141	0.0082	NT				NT		NT
AITR1392-PWC1-WT-A-MH2-ETW-1	1	10.050	1.0051	0.1130	0.0081	13498.00	LGB/LAT	118.845	121.424	9.13	9.329	Not Tested
AITR1392-PWC1-WT-A-MH2-ETW-2	1	10.056	1.0052	0.1136	0.0081	14815.00	LGB/LAT	129.739	133.258	8.93	9.174	Not Tested
AITR1392-PWC1-WT-A-MH2-ETW-3	1	10.053	1.0049	0.1127	0.0081	14208.00	LGB/LAT	125.454	127.837	9.01	9.181	Not Tested
AITR1392-PWC1-WT-A-MH2-ETW-4	1	10.049	1.0052	0.1124	0.0080	NT				NT		NT
AITR1392-PWC1-WT-B-MH1-ETW-1	2	10.060	1.0078	0.1156	0.0083	14316.00	LGM/LGB/LAT	122.882	128.438	9.22	9.636	Not Tested
AITR1392-PWC1-WT-B-MH1-ETW-2	2	10.051	1.0084	0.1158	0.0083	11568.00	LGB/LAT	99.064	103.722	9.22	9.650	Not Tested
AITR1392-PWC1-WT-B-MH1-ETW-3	2	10.061	1.0081	0.1147	0.0082	13227.00	LGB/LAT	114.392	118.632	8.94	9.268	Not Tested
AITR1392-PWC1-WT-B-MH1-ETW-4	2	10.052	1.0082	0.1151	0.0082	NT				NT		NT
AITR1392-PWC1-WT-B-MH2-ETW-1	2	10.008	1.0088	0.1131	0.0081	13214.00	LGB/LAT	115.815	118.433	9.09	9.298	Not Tested
AITR1392-PWC1-WT-B-MH2-ETW-2	2	10.032	1.0088	0.1138	0.0081	13043.00	LGB/LAT	113.614	116.901	9.01	9.268	Not Tested
AITR1392-PWC1-WT-B-MH2-ETW-3	2	10.026	1.0093	0.1137	0.0081	13987.00	LAT/LAB	121.882	125.298	10.88	11.184	Not Tested
AITR1392-PWC1-WT-B-MH2-ETW-4	2	10.049	1.0088	0.1123	0.0080	12986.00	LGB/LAT	114.634	116.396	9.41	9.551	Not Tested
AITR1392-PWC1-WT-C-MH1-ETW-1	3	10.049	0.9983	0.1155	0.0083	14680.00	LGT/LAB	127.316	132.957	9.32	9.735	Not Tested
AITR1392-PWC1-WT-C-MH1-ETW-2	3	10.014	0.9976	0.1150	0.0082	13649.00	LGB/LAT	118.972	123.706	9.27	9.635	Not Tested
AITR1392-PWC1-WT-C-MH1-ETW-3	3	10.050	0.9985	0.1148	0.0082	15246.00	LGB/LAT	133.004	138.055	9.32	9.679	Not Tested
AITR1392-PWC1-WT-C-MH1-ETW-4	3	10.052	0.9982	0.1151	0.0082	NT				NT		NT
AITR1392-PWC1-WT-C-MH2-ETW-1	3	10.071	1.0086	0.1158	0.0083	13860.00	LGB/LAT	118.669	124.248	9.07	9.499	Not Tested
AITR1392-PWC1-WT-C-MH2-ETW-2	3	10.065	1.0080	0.1158	0.0083	14212.00	LGB/LGT	121.755	127.479	9.18	9.609	Not Tested
AITR1392-PWC1-WT-C-MH2-ETW-3	3	10.068	1.0079	0.1179	0.0084	13433.00	LGB/LAT	113.043	120.504	8.95	9.540	Not Tested
AITR1392-PWC1-WT-C-MH2-ETW-4	3	10.063	1.0080	0.1155	0.0083	NT				NT		NT
Minimum		10.0080	0.9976	0.1121	0.0080	11568.00		99.064	103.722	8.931	9.136	
Maximum		10.0990	1.0093	0.1179	0.0084	15246.00		134.030	138.055	10.879	11.184	
Average		10.0540	1.0061	0.1144	0.0082	13896.74		120.732	124.884	9.213	9.532	
Standard Deviation		0.0200	0.0038	0.0014	0.0001	908.40		8.372	8.354	0.427	0.443	
Coefficient of Variation (%)		0.20	0.38	1.23	1.23	6.54		6.93	6.69	4.64	4.65	
No. Specimens		24	24	24	24	19		19	19	19	19	

**Notes:**  
 NT=Not Tested  
 NR=No Result  
 GE=Gage Error  
 FM=Failure Mode Unacceptable  
 A-MH1-ETW-3: MODULUS FROM 750 TO 2750








<b>Input:</b>	Test Plan Prefix		Test Plan #	Material	Test	Cure Cycle	Condition					
	AITR		1392	PWC1	FT	MH	ETW					

**Test Group: AITR1392-PWC1-FT-MH-ETW**


<b>Material:</b>	<b>MTM45-1/CF0525-36%RW</b>	Normalization:	Cured Ply Thickness:	0.0079	#Plies:	14	<b>ACG, Inc.</b> <b>Material &amp; Process</b> <b>Laboratory Report</b>	
Test Type:	Fill Tensile	Condition:	ETW					
Test Method:	MP1112 (ASTMD3039)	Modulus/Poisson's Range:	Chord 0.1% to 0.3%					

Specimen ID	Batch	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-PWC1-FT-A-MH1-ETW-1	1	10.006	1.0072	0.1147	0.0082	14683.00	LGT/LGB	127.056	131.804	8.71	9.031	Not Tested
AITR1392-PWC1-FT-A-MH1-ETW-2	1	10.003	1.0069	0.1141	0.0082	14435.00	LGT	125.608	129.621	8.93	9.219	Not Tested
AITR1392-PWC1-FT-A-MH1-ETW-3	1	10.002	1.0070	0.1140	0.0081	15040.00	LGB/LAT	131.017	135.045	9.07	9.349	Not Tested
AITR1392-PWC1-FT-A-MH1-ETW-4	1	10.012	1.0071	0.1135	0.0081	14248.00	AGB/LGT	124.616	127.921	9.04	9.276	Not Tested
AITR1392-PWC1-FT-A-MH2-ETW-1	1	10.044	1.0082	0.1145	0.0082	13703.00	LGT	118.703	122.889	8.30	8.590	Not Tested
AITR1392-PWC1-FT-A-MH2-ETW-2	1	10.047	1.0073	0.1158	0.0083	13207.00	LGB/LGT	113.224	118.547	8.53	8.929	Not Tested
AITR1392-PWC1-FT-A-MH2-ETW-3	1	10.037	1.0064	0.1147	0.0082	13921.00	LGB/LGT	120.597	125.068	8.77	9.094	Not Tested
AITR1392-PWC1-FT-A-MH2-ETW-4	1	10.045	1.0078	0.1141	0.0082	NT				NT		NT
AITR1392-PWC1-FT-B-MH1-ETW-1	2	10.036	1.0097	0.1152	0.0082	11217.00	LGB/LGT	96.434	100.445	8.13	8.472	Not Tested
AITR1392-PWC1-FT-B-MH1-ETW-2	2	10.038	1.0097	0.1149	0.0082	10922.00	LGB/LGT	94.143	97.804	8.16	8.478	Not Tested
AITR1392-PWC1-FT-B-MH1-ETW-3	2	10.035	1.0093	0.1143	0.0082	13477.00	LGT/LGM	116.823	120.731	8.68	8.973	Not Tested
AITR1392-PWC1-FT-B-MH1-ETW-4	2					NT				NT		NT
AITR1392-PWC1-FT-B-MH2-ETW-1	2	10.010	1.0093	0.1145	0.0082	12252.00	LGM	106.018	109.757	8.62	8.925	Not Tested
AITR1392-PWC1-FT-B-MH2-ETW-2	2	10.018	1.0098	0.1119	0.0080	13059.00	LGM	115.570	116.928	8.49	8.594	Not Tested
AITR1392-PWC1-FT-B-MH2-ETW-3	2	10.013	1.0095	0.1138	0.0081	12212.00	LGT	106.301	109.377	8.32	8.563	Not Tested
AITR1392-PWC1-FT-B-MH2-ETW-4	2					NT				NT		NT
AITR1392-PWC1-FT-C-MH1-ETW-1	3	10.046	1.0081	0.1171	0.0084	13158.00	LAB	111.463	118.013	8.65	9.154	Not Tested
AITR1392-PWC1-FT-C-MH1-ETW-2	3	10.073	1.0080	0.1158	0.0083	FM	None			8.77	9.182	Not Tested
AITR1392-PWC1-FT-C-MH1-ETW-3	3	10.058	1.0079	0.1159	0.0083	FM	None			8.62	9.033	Not Tested
AITR1392-PWC1-FT-C-MH1-ETW-4	3	10.049	1.0088	0.1159	0.0083	11843.00	LAT	101.292	106.145	8.11	8.499	Not Tested
AITR1392-PWC1-FT-C-MH2-ETW-1	3	10.054	1.0070	0.1164	0.0083	13951.00	LGB/LGT	119.021	125.262	GE		Not Tested
AITR1392-PWC1-FT-C-MH2-ETW-2	3	10.053	1.0076	0.1163	0.0083	13838.00	LGT	118.088	124.174	GE		Not Tested
AITR1392-PWC1-FT-C-MH2-ETW-3	3	10.050	1.0069	0.1182	0.0084	14371.00	LGM/LGT	120.749	129.046	GE		Not Tested
AITR1392-PWC1-FT-C-MH2-ETW-4	3	10.057	1.0067	0.1167	0.0083	13898.00	LGT/LGB	118.299	124.824	GE		Not Tested
Minimum		10.0020	1.0064	0.1119	0.0080	10922.00		94.143	97.804	8.110	8.472	
Maximum		10.0730	1.0098	0.1182	0.0084	15040.00		131.017	135.045	9.070	9.349	
Average		10.0357	1.0080	0.1151	0.0082	13338.68		115.001	119.653	8.582	8.904	
Standard Deviation		0.0206	0.0011	0.0014	0.0001	1163.84		10.178	10.551	0.299	0.305	
Coefficient of Variation (%)		0.21	0.11	1.21	1.21	8.73		8.85	8.82	3.48	3.43	
No. Specimens		22	22	22	22	19		19	19	17	17	

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

<b>Input:</b>	Test Plan Prefix		Test Plan #	Material	Test	Cure Cycle	Condition						
	AITR		1392	PWC1	FT	MH	ETW2						

**Test Group: AITR1392-PWC1-FT-MH-ETW2**

<b>Material:</b>	<b><u>MTM45-1/CF0525-36%RW</u></b>	Normalization:	Cured Ply Thickness:	0.0079	#Plies:	14	<b>ACG, Inc.</b> <b>Material &amp; Process</b> <b>Laboratory Report</b> 	
Test Type:	Fill Tensile	Condition:	ETW2					
Test Method:	MP1112 (ASTMD3039)	Modulus/Poisson's Range:	Chord 0.1% to 0.3%					

Specimen ID	Batch	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-PWC1-FT-A-MH1-ETW2-1	1	10.004	1.0071	0.1104	0.0079	15059.00	LGB/LAT	135.479	135.193	10.10	10.074	Not Tested
AITR1392-PWC1-FT-A-MH1-ETW2-2	1	10.007	1.0072	0.1141	0.0081	14130.00	LGM	122.985	126.840	9.59	9.896	Not Tested
AITR1392-PWC1-FT-A-MH1-ETW2-3	1	10.005	1.0069	0.1143	0.0082	14285.00	LGB/LGT	124.118	128.270	10.03	10.366	Not Tested
AITR1392-PWC1-FT-A-MH1-ETW2-4	1	10.004	1.0067	0.1144	0.0082	NT				NT		NT
AITR1392-PWC1-FT-A-MH2-ETW2-1	1	10.044	1.0083	0.1137	0.0081	14025.00	LGB/LGT	122.304	125.769	GE		Not Tested
AITR1392-PWC1-FT-A-MH2-ETW2-2	1	10.034	1.0078	0.1162	0.0083	13105.00	LGB/LGT	111.937	117.571	8.84	9.283	Not Tested
AITR1392-PWC1-FT-A-MH2-ETW2-3	1	10.041	1.0083	0.1156	0.0083	13508.00	LGB/LGT	115.923	121.128	9.97	10.414	Not Tested
AITR1392-PWC1-FT-A-MH2-ETW2-4	1	10.043	1.0072	0.1139	0.0081	12740.00	LGB/LGT	111.049	114.363	9.87	10.161	Not Tested
AITR1392-PWC1-FT-B-MH1-ETW2-1	2	10.050	1.0100	0.1153	0.0082	9703.00	LGT	83.336	86.862	9.62	10.027	Not Tested
AITR1392-PWC1-FT-B-MH1-ETW2-2	2	10.041	1.0100	0.1144	0.0082	9743.00	LGB/LGT	84.323	87.220	9.51	9.832	Not Tested
AITR1392-PWC1-FT-B-MH1-ETW2-3	2	10.051	1.0098	0.1152	0.0082	9350.00	LGB	80.376	83.718	9.18	9.559	Not Tested
AITR1392-PWC1-FT-B-MH1-ETW2-4	2					NT				NT		NT
AITR1392-PWC1-FT-B-MH2-ETW2-1	2	10.015	1.0093	0.1141	0.0082	11367.00	LGB/LGT	98.705	101.829	9.79	10.101	Not Tested
AITR1392-PWC1-FT-B-MH2-ETW2-2	2	10.012	1.0098	0.1134	0.0081	11371.00	LGT/LGB	99.300	101.814	9.93	10.177	Not Tested
AITR1392-PWC1-FT-B-MH2-ETW2-3	2	10.016	1.0090	0.1107	0.0079	11604.00	LGT/LGB	103.889	103.983	10.25	10.257	Not Tested
AITR1392-PWC1-FT-B-MH2-ETW2-4	2	10.013	1.0095	0.1136	0.0081	NT				NT		NT
AITR1392-PWC1-FT-C-MH1-ETW2-1	3	10.036	1.0080	0.1165	0.0083	12577.00	LGB/LGT	107.100	112.814	9.84	10.367	Not Tested
AITR1392-PWC1-FT-C-MH1-ETW2-2	3	10.049	1.0077	0.1180	0.0084	12786.00	LGT/LGB	107.528	114.722	9.38	10.004	Not Tested
AITR1392-PWC1-FT-C-MH1-ETW2-3	3	10.052	1.0081	0.1169	0.0084	13277.00	LGM	112.663	119.081	9.98	10.543	Not Tested
AITR1392-PWC1-FT-C-MH1-ETW2-4	3					NT				NT		NT
AITR1392-PWC1-FT-C-MH2-ETW2-1	3	10.055	1.0069	0.1179	0.0084	13265.00	LGM	111.740	119.115	GE		Not Tested
AITR1392-PWC1-FT-C-MH2-ETW2-2	3	10.051	1.0074	0.1172	0.0084	13654.00	LGM	115.646	122.547	9.59	10.160	Not Tested
AITR1392-PWC1-FT-C-MH2-ETW2-3	3	10.054	1.0068	0.1150	0.0082	13650.00	LGT/LGB	117.894	122.584	9.71	10.092	Not Tested
AITR1392-PWC1-FT-C-MH2-ETW2-4	3	10.052	1.0074	0.1147	0.0082	NT				NT		NT
Minimum		10.0040	1.0067	0.1104	0.0079	9350.00		80.376	83.718	8.838	9.283	
Maximum		10.0550	1.0100	0.1180	0.0084	15059.00		135.479	135.193	10.248	10.543	
Average		10.0331	1.0081	0.1148	0.0082	12589.42		108.752	112.917	9.715	10.077	
Standard Deviation		0.0193	0.0011	0.0019	0.0001	1643.91		14.577	14.843	0.354	0.312	
Coefficient of Variation (%)		0.19	0.11	1.69	1.69	13.06		13.40	13.15	3.64	3.09	
No. Specimens		22	22	22	22	19		19	19	17	17	

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



<b>Input:</b>	Test Plan Prefix		Test Plan #	Material	Test	Cure Cycle	Condition							
	AITR		1392	PWC1	WC	MH	RTD							

**Test Group: AITR1392-PWC1-WC-MH-RTD**

<b>Material:</b>	<b>MTM45-1/CF0525-36%RW</b>	Normalization:	Cured Ply Thickness:	0.0079	#Plies:	18	<b>ACG, Inc.</b> <b>Material &amp; Process</b> <b>Laboratory Report</b> 
Test Type:	Warp Compression	Condition:	RTD				
Test Method:	MP1114 (ASTMD6641)	Modulus/Poisson's Range:	Chord 0.1% to 0.3%				

Specimen ID	Batch	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-PWC1-WC-A-MH1-RTD-1	1	5.508	0.5100	0.1427	0.0079	6756.00	AGT	92.832	93.158	GE		Not Tested
AITR1392-PWC1-WC-A-MH1-RTD-2	1	5.510	0.5100	0.1435	0.0080	6428.00	AGM	87.832	88.635	8.67	8.754	0.062
AITR1392-PWC1-WC-A-MH1-RTD-3	1	5.509	0.5100	0.1437	0.0080	6999.00	BGM	95.501	96.509	8.56	8.649	0.016
AITR1392-PWC1-WC-A-MH1-RTD-4	1	5.509	0.5100	0.1419	0.0079	NT				NT		NT
AITR1392-PWC1-WC-A-MH2-RTD-1	1	5.510	0.5100	0.1469	0.0082	7206.00	BGB	96.184	99.363	8.06	8.331	0.046
AITR1392-PWC1-WC-A-MH2-RTD-2	1	5.510	0.5098	0.1447	0.0080	6618.00	AGM	89.714	91.291	8.56	8.708	0.048
AITR1392-PWC1-WC-A-MH2-RTD-3	1	5.510	0.5100	0.1444	0.0080	7114.00	BGM	96.600	98.094	8.77	8.908	0.016
AITR1392-PWC1-WC-A-MH2-RTD-4	1	5.508	0.5100	0.1450	0.0081	NT				NT		NT
AITR1392-PWC1-WC-B-MH1-RTD-1	2	5.507	0.5071	0.1457	0.0081	7112.00	BGB	96.258	98.628	8.16	8.363	0.017
AITR1392-PWC1-WC-B-MH1-RTD-2	2	5.509	0.5069	0.1462	0.0081	7038.00	BGM	94.969	97.640	8.47	8.712	0.014
AITR1392-PWC1-WC-B-MH1-RTD-3	2	5.508	0.5059	0.1453	0.0081	6842.00	BGM	93.079	95.108	8.24	8.417	0.066
AITR1392-PWC1-WC-B-MH1-RTD-4	2	5.508	0.5074	0.1434	0.0080	NT				NT		NT
AITR1392-PWC1-WC-B-MH2-RTD-1	2	5.510	0.5076	0.1427	0.0079	7011.00	AGB	96.791	97.131	8.50	8.527	0.027
AITR1392-PWC1-WC-B-MH2-RTD-2	2	5.508	0.5070	0.1425	0.0079	6909.00	BGB	95.630	95.831	8.50	8.516	0.063
AITR1392-PWC1-WC-B-MH2-RTD-3	2	5.508	0.5072	0.1427	0.0079	7094.00	BGB	98.014	98.359	8.72	8.754	0.029
AITR1392-PWC1-WC-B-MH2-RTD-4	2	5.509	0.5063	0.1465	0.0081	NT				NT		NT
AITR1392-PWC1-WC-C-MH1-RTD-1	3	5.504	0.5074	0.1496	0.0083	6658.00	BGB	87.713	92.277	8.54	8.986	0.054
AITR1392-PWC1-WC-C-MH1-RTD-2	3	5.509	0.5038	0.1469	0.0082	6771.00	BGM	91.490	94.514	8.26	8.538	0.011
AITR1392-PWC1-WC-C-MH1-RTD-3	3	5.503	0.5039	0.1501	0.0083	6847.00	BGM	90.526	95.556	7.60	8.024	0.098
AITR1392-PWC1-WC-C-MH1-RTD-4	3	5.506	0.5074	0.1506	0.0084	NT				NT		NT
AITR1392-PWC1-WC-C-MH2-RTD-1	3	5.505	0.4992	0.1499	0.0083	6561.00	BGM	87.679	92.426	GE		0.081
AITR1392-PWC1-WC-C-MH2-RTD-2	3	5.509	0.5025	0.1468	0.0082	7272.00	AGB	98.581	101.770	8.67	8.946	0.069
AITR1392-PWC1-WC-C-MH2-RTD-3	3	5.509	0.5034	0.1486	0.0083	6370.00	BGB	85.154	88.987	8.62	9.009	GE
AITR1392-PWC1-WC-C-MH2-RTD-4	3	5.501	0.4997	0.1491	0.0083	NT				NT		NT
Minimum		5.5010	0.4992	0.1419	0.0079	6370.00		85.154	88.635	7.602	8.024	0.0111
Maximum		5.5100	0.5100	0.1506	0.0084	7272.00		98.581	101.770	8.772	9.009	0.0976
Average		5.5078	0.5068	0.1458	0.0081	6867.00		93.030	95.293	8.432	8.634	0.0447
Standard Deviation		0.0024	0.0032	0.0027	0.0002	263.72		4.096	3.599	0.302	0.270	0.0269
Coefficient of Variation (%)		0.04	0.64	1.86	1.86	3.84		4.40	3.78	3.58	3.13	60.29
No. Specimens		24	24	24	24	18		18	18	16	16	16

**Notes:**  
 NT=Not Tested  
 NR=No Result  
 GE=Gage Error  
 FM=Failure Mode Unacceptable  
 C-MH1-3:Modulus 3000 to 5000, C-MH2-3:Modulus 2000 to 4000

Input:	Test Plan Prefix		Test Plan #	Material	Test	Cure Cycle	Condition					
	AITR		1392	PWC1	WC	MH	ETW					

**Test Group: AITR1392-PWC1-WC-MH-ETW**

**Material:** MTM45-1/CF0525-36%RW      Normalization:      Cured Ply Thickness: 0.0079      #Plies: 18  
**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	Batch	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-PWC1-WC-A-MH1-ETW-1	1	5.509	0.5095	0.1444	0.0080	4312.00	HGT	58.609	59.516	GE		GE
AITR1392-PWC1-WC-A-MH1-ETW-2	1	5.508	0.5097	0.1439	0.0080	4882.00	HGM	66.561	67.357	9.19	9.299	GE
AITR1392-PWC1-WC-A-MH1-ETW-3	1	5.509	0.5096	0.1429	0.0079	4537.00	HGT	62.303	62.609	GE		GE
AITR1392-PWC1-WC-A-MH1-ETW-4	1	5.509	0.5094	0.1430	0.0079	4503.00	HGM	61.817	62.165	GE		GE
AITR1392-PWC1-WC-A-MH2-ETW-1	1	5.509	0.5091	0.1470	0.0082	4342.00	HAT	58.019	59.977	9.21	9.517	0.105
AITR1392-PWC1-WC-A-MH2-ETW-2	1	5.509	0.5096	0.1466	0.0081	4714.00	BGM	63.100	65.052	10.27	10.587	0.073
AITR1392-PWC1-WC-A-MH2-ETW-3	1	5.510	0.5093	0.1465	0.0081	4934.00	HGM	66.128	68.128	GE		GE
AITR1392-PWC1-WC-A-MH2-ETW-4	1	5.510	0.5097	0.1435	0.0080	4963.00	BGM/HIB	67.854	68.475	10.20	10.297	GE
AITR1392-PWC1-WC-B-MH1-ETW-1	2	5.502	0.5075	0.1457	0.0081	5469.00	HGB	73.963	75.783	GE		GE
AITR1392-PWC1-WC-B-MH1-ETW-2	2	5.509	0.5060	0.1470	0.0082	5712.00	BGM	76.793	79.385	7.69	7.946	0.155
AITR1392-PWC1-WC-B-MH1-ETW-3	2	5.510	0.5071	0.1469	0.0082	NT				NT		NT
AITR1392-PWC1-WC-B-MH1-ETW-4	2	5.510	0.5065	0.1469	0.0082	NT				NT		NT
AITR1392-PWC1-WC-B-MH2-ETW-1	2	5.509	0.5067	0.1455	0.0081	5092.00	HGB	69.068	70.670	8.75	8.950	0.057
AITR1392-PWC1-WC-B-MH2-ETW-2	2	5.510	0.5074	0.1461	0.0081	5248.00	HAB	70.793	72.735	9.79	10.063	0.026
AITR1392-PWC1-WC-B-MH2-ETW-3	2	5.510	0.5075	0.1472	0.0082	5521.00	BGM	73.905	76.504	GE		GE
AITR1392-PWC1-WC-B-MH2-ETW-4	2	5.510	0.5078	0.1477	0.0082	4779.00	MMV	63.718	66.183	GE		0.029
AITR1392-PWC1-WC-C-MH1-ETW-1	3	5.508	0.5080	0.1482	0.0082	4533.00	BGM	60.228	62.755	8.95	9.327	0.040
AITR1392-PWC1-WC-C-MH1-ETW-2	3	5.506	0.5073	0.1486	0.0083	3605.00	HGM	47.811	49.974	8.53	8.917	0.087
AITR1392-PWC1-WC-C-MH1-ETW-3	3	5.506	0.5074	0.1503	0.0083	4404.00	HGM	57.765	61.042	9.10	9.620	GE
AITR1392-PWC1-WC-C-MH1-ETW-4	3	5.508	0.5077	0.1493	0.0083	NT				NT		NT
AITR1392-PWC1-WC-C-MH2-ETW-1	3	5.509	0.4996	0.1486	0.0083	4118.00	BGM	55.465	57.961	8.71	9.107	0.101
AITR1392-PWC1-WC-C-MH2-ETW-2	3	5.502	0.4998	0.1500	0.0083	4580.00	BGM	61.109	64.446	9.45	9.962	0.003
AITR1392-PWC1-WC-C-MH2-ETW-3	3	5.500	0.4993	0.1503	0.0083	4886.00	HGM	65.118	68.812	8.21	8.680	0.052
AITR1392-PWC1-WC-C-MH2-ETW-4	3	5.500	0.4998	0.1483	0.0082	NT				NT		NT
Minimum		5.5000	0.4993	0.1429	0.0079	3605.00		47.811	49.974	7.687	7.946	0.0034
Maximum		5.5100	0.5097	0.1503	0.0083	5712.00		76.793	79.385	10.269	10.587	0.1549
Average		5.5076	0.5067	0.1468	0.0082	4756.70		64.006	65.976	9.081	9.405	0.0663
Standard Deviation		0.0032	0.0034	0.0022	0.0001	507.27		6.996	7.023	0.742	0.719	0.0435
Coefficient of Variation (%)		0.06	0.67	1.49	1.49	10.66		10.93	10.65	8.17	7.64	65.64
No. Specimens		24	24	24	24	20		20	20	13	13	11

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

<b>Input:</b>	Test Plan Prefix		Test Plan #	Material	Test	Cure Cycle	Condition					
	AITR		1392	PWC1	WC	MH	ETW2					

**Test Group:** AITR1392-PWC1-WC-MH-ETW2

<b>Material:</b>	<b>MTM45-1/CF0525-36%RW</b>	Normalization:	Cured Ply Thickness:	0.0079	#Plies:	18	<b>ACG, Inc.</b> <b>Material &amp; Process</b> <b>Laboratory Report</b> 
Test Type:	Warp Compression	Condition:	ETW2				
Test Method:	MP1114 (ASTMD6641)	Modulus/Poisson's Range:	Chord 0.1% to 0.3%				

Specimen ID	Batch	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-PWC1-WC-A-MH1-ETW2-1	1	5.510	0.5110	0.1429	0.0079	3420.00	HGM	46.835	47.066	GE		GE
AITR1392-PWC1-WC-A-MH1-ETW2-2	1	5.509	0.5093	0.1423	0.0079	3519.00	HGM	48.556	48.590	GE		GE
AITR1392-PWC1-WC-A-MH1-ETW2-3	1	5.509	0.5102	0.1434	0.0080	3981.00	HGM	54.413	54.872	GE		GE
AITR1392-PWC1-WC-A-MH1-ETW2-4	1	5.509	0.5064	0.1425	0.0079	3879.00	HGM	53.754	53.867	GE		GE
AITR1392-PWC1-WC-A-MH2-ETW2-1	1	5.508	0.5094	0.1457	0.0081	3796.00	BGM	51.146	52.404	GE		GE
AITR1392-PWC1-WC-A-MH2-ETW2-2	1	5.490	0.5096	0.1452	0.0081	3941.00	BGM	53.261	54.385	GE		GE
AITR1392-PWC1-WC-A-MH2-ETW2-3	1	5.509	0.5100	0.1444	0.0080	4022.00	BGM	54.614	55.459	GE		GE
AITR1392-PWC1-WC-A-MH2-ETW2-4	1	5.505	0.5098	0.1458	0.0081	NT				NT		NT
AITR1392-PWC1-WC-B-MH1-ETW2-1	2	5.510	0.5072	0.1466	0.0081	3816.00	BGM	51.321	52.909	GE		GE
AITR1392-PWC1-WC-B-MH1-ETW2-2	2	5.511	0.5075	0.1470	0.0082	3882.00	BGM	52.036	53.792	GE		GE
AITR1392-PWC1-WC-B-MH1-ETW2-3	2	5.512	0.5067	0.1461	0.0081	3739.00	HGM	50.507	51.893	GE		GE
AITR1392-PWC1-WC-B-MH1-ETW2-4	2	5.512	0.5068	0.1462	0.0081	NT				NT		NT
AITR1392-PWC1-WC-B-MH2-ETW2-1	2	5.512	0.5074	0.1472	0.0082	4708.00	BAB	63.034	65.251	GE		GE
AITR1392-PWC1-WC-B-MH2-ETW2-2	2	5.510	0.5070	0.1474	0.0082	4011.00	HGM/MIB	53.672	55.635	GE		GE
AITR1392-PWC1-WC-B-MH2-ETW2-3	2	5.510	0.5080	0.1469	0.0082	4722.00	HGM	63.276	65.368	GE		GE
AITR1392-PWC1-WC-B-MH2-ETW2-4	2	5.508	0.5076	0.1465	0.0081	NT				NT		NT
AITR1392-PWC1-WC-C-MH1-ETW2-1	3	5.508	0.5078	0.1456	0.0081	3283.00	HGM	44.390	45.462	GE		GE
AITR1392-PWC1-WC-C-MH1-ETW2-2	3	5.507	0.5070	0.1491	0.0083	3070.00	HGM	40.605	42.585	GE		GE
AITR1392-PWC1-WC-C-MH1-ETW2-3	3	5.506	0.5072	0.1486	0.0083	2728.00	HGM	36.205	37.826	GE		GE
AITR1392-PWC1-WC-C-MH1-ETW2-4	3	5.507	0.5073	0.1484	0.0082	3738.00	HGM	49.656	51.821	GE		GE
AITR1392-PWC1-WC-C-MH2-ETW2-1	3	5.502	0.4998	0.1493	0.0083	3957.00	HGM/HIB	53.025	55.673	GE		GE
AITR1392-PWC1-WC-C-MH2-ETW2-2	3	5.501	0.5000	0.1485	0.0083	3438.00	BGT	46.296	48.358	GE		GE
AITR1392-PWC1-WC-C-MH2-ETW2-3	3	5.505	0.4997	0.1487	0.0083	3401.00	HGM	45.757	47.860	GE		GE
AITR1392-PWC1-WC-C-MH2-ETW2-4	3	5.505	0.4995	0.1485	0.0083	NT				NT		NT
Minimum		5.4900	0.4995	0.1423	0.0079	2728.00		36.205	37.826			
Maximum		5.5120	0.5110	0.1493	0.0083	4722.00		63.276	65.368			
Average		5.5073	0.5068	0.1464	0.0081	3752.55		50.618	52.054			
Standard Deviation		0.0047	0.0034	0.0021	0.0001	474.86		6.440	6.542			
Coefficient of Variation (%)		0.09	0.68	1.44	1.44	12.65		12.72	12.57			
No. Specimens		24	24	24	24	20		20	20			

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













<b>Input:</b>	Test Plan Prefix		Test Plan #	Material	Test	Cure Cycle	Condition			
	AITR		1392	PWC1	IPS	MH	RTD			

**Test Group: AITR1392-PWC1-IPS-MH-RTD**

<b>Material:</b> MTM45-1/CF0525-36%RW	Normalization: <u>NA</u>	Cured Ply Thickness: <u>0.0079</u>	<b>ACG, Inc.</b> <b>Material &amp; Process</b> <b>Laboratory Report</b>
Test Type: <u>±45° In Plane Shear</u>	Condition: <u>RTD</u>	#Plies: <u>8</u>	
Test Method: <u>MP1115 (ASTMD3518)</u>	Modulus/Poisson's Range:	<u>Chord 0.2% to 0.6%</u>	

Specimen ID	Batch	Length, in.	Width, in.	Thickness, in.	Cured Ply Thickness:	Failure Mode	Shear Strength, ksi			Modulus, Msi
							0.2% Offset	@ 5% Strain	Maximum	Measured
AITR1392-PWC1-IPS-A-MH1-RTD-1	1	10.026	1.0069	0.0666	0.0083		6.188	GE	NT	0.524
AITR1392-PWC1-IPS-A-MH1-RTD-2	1	10.034	1.0079	0.0649	0.0081		5.572	10.910	NT	0.590
AITR1392-PWC1-IPS-A-MH1-RTD-3	1	10.041	1.0065	0.0648	0.0081		5.857	10.348	NT	0.576
AITR1392-PWC1-IPS-A-MH1-RTD-4	1	10.018	1.0073	0.0658	0.0082		5.922	10.441	NT	0.599
AITR1392-PWC1-IPS-A-MH2-RTD-1	1	10.078	1.0015	0.0658	0.0082		6.413	9.806	NT	0.472
AITR1392-PWC1-IPS-A-MH2-RTD-2	1	10.071	1.0008	0.0643	0.0080		5.729	10.013	NT	0.590
AITR1392-PWC1-IPS-A-MH2-RTD-3	1	10.075	1.0090	0.0663	0.0083		5.803	9.847	NT	0.546
AITR1392-PWC1-IPS-A-MH2-RTD-4	1	10.065	1.0098	0.0656	0.0082		5.925	10.447	NT	0.600
AITR1392-PWC1-IPS-B-MH1-RTD-1	2	10.029	1.0098	0.0672	0.0084		5.837	GE	NT	0.596
AITR1392-PWC1-IPS-B-MH1-RTD-2	2	10.028	1.0099	0.0648	0.0081		5.824	9.973	NT	0.584
AITR1392-PWC1-IPS-B-MH1-RTD-3	2	10.020	1.0069	0.0654	0.0082		5.693	9.801	NT	0.588
AITR1392-PWC1-IPS-B-MH1-RTD-4	2	10.040	1.0088	0.0654	0.0082		6.153	GE	NT	0.523
AITR1392-PWC1-IPS-B-MH2-RTD-1	2	10.043	1.0085	0.0666	0.0083		6.251	9.945	NT	0.521
AITR1392-PWC1-IPS-B-MH2-RTD-2	2	10.023	1.0085	0.0670	0.0084		5.808	GE	NT	0.538
AITR1392-PWC1-IPS-B-MH2-RTD-3	2	10.043	1.0089	0.0639	0.0080		6.448	10.157	NT	0.528
AITR1392-PWC1-IPS-B-MH2-RTD-4	2	10.041	1.0089	0.0651	0.0081		6.477	10.043	NT	0.479
AITR1392-PWC1-IPS-C-MH1-RTD-1	3	10.060	0.9953	0.0664	0.0083		5.875	9.610	NT	0.539
AITR1392-PWC1-IPS-C-MH1-RTD-2	3	10.056	0.9955	0.0678	0.0085		5.462	9.348	NT	0.512
AITR1392-PWC1-IPS-C-MH1-RTD-3	3	10.059	0.9954	0.0677	0.0085		6.549	9.461	NT	0.477
AITR1392-PWC1-IPS-C-MH1-RTD-4	3	10.048	0.9954	0.0679	0.0085		5.734	9.440	NT	0.536
AITR1392-PWC1-IPS-C-MH2-RTD-1	3	10.035	0.9981	0.0673	0.0084		6.312	9.539	NT	0.503
AITR1392-PWC1-IPS-C-MH2-RTD-2	3	9.994	0.9979	0.0686	0.0086		6.285	10.171	NT	0.525
AITR1392-PWC1-IPS-C-MH2-RTD-3	3	10.043	0.9978	0.0677	0.0085		5.746	9.714	NT	0.521
AITR1392-PWC1-IPS-C-MH2-RTD-4	3	10.039	0.9975	0.0663	0.0083		6.115	GE	NT	0.509
Minimum		9.9940	0.9953	0.0639	0.0080		5.462	9.348		0.472
Maximum		10.0780	1.0099	0.0686	0.0086		6.549	10.910		0.600
Average		10.0420	1.0039	0.0662	0.0083		5.999	9.948		0.541
Standard Deviation		0.0199	0.0057	0.0013	0.0002		0.307	0.403		0.041
Coefficient of Variation (%)		0.20	0.57	1.91	1.91		5.12	4.05		7.52
No. Specimens		24	24	24	24		24	19		24

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

<b>Input:</b>	Test Plan Prefix		Test Plan #	Material	Test	Cure Cycle	Condition			
	AITR		1392	PWC1	IPS	MH	ETW			

**Test Group: AITR1392-PWC1-IPS-MH-ETW**

<b>Material:</b>	<b>MTM45-1/CF0525-36%RW</b>	Normalization: <u>NA</u>	Cured Ply Thickness:	<u>0.0079</u>	<b>ACG, Inc. Material &amp; Process Laboratory Report</b>
Test Type:	<u>±45° In Plane Shear</u>	Condition: <u>ETW</u>	#Plies:	<u>8</u>	
Test Method:	<u>MP1115 (ASTMD3518)</u>	Modulus/Poisson's Range:	<u>Chord 0.2% to 0.6%</u>		

Specimen ID	Batch	Length, in.	Width, in.	Thickness, in.	Cured Ply Thickness:	Failure Mode	Shear Strength, ksi			Modulus, Msi
							0.2% Offset	@ 5% Strain	Maximum	Measured
AITR1392-PWC1-IPS-A-MH1-ETW-1	1	10.041	1.0057	0.0648	0.0081		3.475	5.514	NT	0.441
AITR1392-PWC1-IPS-A-MH1-ETW-2	1	10.038	1.0073	0.0665	0.0083		3.432	5.502	NT	0.345
AITR1392-PWC1-IPS-A-MH1-ETW-3	1	10.035	1.0077	0.0669	0.0084		3.070	5.446	NT	0.433
AITR1392-PWC1-IPS-A-MH1-ETW-4	1	10.038	0.9979	0.0658	0.0082		NT	NA	NT	NT
AITR1392-PWC1-IPS-A-MH2-ETW-1	1	10.072	1.0117	0.0663	0.0083		3.206	5.628	NT	0.387
AITR1392-PWC1-IPS-A-MH2-ETW-2	1	10.074	1.0117	0.0659	0.0082		3.364	5.422	NT	0.360
AITR1392-PWC1-IPS-A-MH2-ETW-3	1	10.072	1.0107	0.0664	0.0083		3.156	5.559	NT	0.369
AITR1392-PWC1-IPS-A-MH2-ETW-4	1	10.083	1.0113	0.0658	0.0082		NT	NA	NT	NT
AITR1392-PWC1-IPS-B-MH1-ETW-1	2	10.043	1.0098	0.0657	0.0082		3.379	GE	NT	0.357
AITR1392-PWC1-IPS-B-MH1-ETW-2	2	10.048	1.0100	0.0642	0.0080		3.661	GE	NT	0.371
AITR1392-PWC1-IPS-B-MH1-ETW-3	2	10.039	1.0092	0.0667	0.0083		2.835	5.216	NT	0.376
AITR1392-PWC1-IPS-B-MH1-ETW-4	2	10.033	1.0099	0.0673	0.0084		3.534	5.522	NT	0.366
AITR1392-PWC1-IPS-B-MH2-ETW-1	2	10.045	1.0094	0.0669	0.0084		3.495	GE	NT	0.365
AITR1392-PWC1-IPS-B-MH2-ETW-2	2	10.049	1.0088	0.0670	0.0084		3.471	GE	NT	0.405
AITR1392-PWC1-IPS-B-MH2-ETW-3	2	10.058	1.0088	0.0650	0.0081		3.578	GE	NT	0.344
AITR1392-PWC1-IPS-B-MH2-ETW-4	2	10.044	1.0091	0.0645	0.0081		3.434	GE	NT	0.396
AITR1392-PWC1-IPS-C-MH1-ETW-1	3	10.057	0.9952	0.0670	0.0084		2.977	5.456	NT	0.403
AITR1392-PWC1-IPS-C-MH1-ETW-2	3	10.053	0.9948	0.0663	0.0083		3.978	6.066	NT	0.313
AITR1392-PWC1-IPS-C-MH1-ETW-3	3	10.057	0.9951	0.0672	0.0084		3.145	5.432	NT	0.307
AITR1392-PWC1-IPS-C-MH1-ETW-4	3	10.055	0.9953	0.0673	0.0084		NT	NA	NT	NT
AITR1392-PWC1-IPS-C-MH2-ETW-1	3	10.052	0.9975	0.0670	0.0084		3.188	6.164	NT	0.361
AITR1392-PWC1-IPS-C-MH2-ETW-2	3	10.050	0.9976	0.0676	0.0085		3.077	5.222	NT	0.346
AITR1392-PWC1-IPS-C-MH2-ETW-3	3	10.052	0.9976	0.0686	0.0086		2.921	5.072	NT	0.355
AITR1392-PWC1-IPS-C-MH2-ETW-4	3	10.044	0.9973	0.0685	0.0086		NT	NA	NT	NT
Minimum		10.0330	0.9948	0.0642	0.0080		2.835	5.072		0.307
Maximum		10.0830	1.0117	0.0686	0.0086		3.978	6.164		0.441
Average		10.0513	1.0046	0.0665	0.0083		3.319	5.516		0.370
Standard Deviation		0.0131	0.0066	0.0011	0.0001		0.280	0.296		0.034
Coefficient of Variation (%)		0.13	0.65	1.69	1.69		8.44	5.36		9.23
No. Specimens		24	24	24	24		20	14		20

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

<b>Input:</b>	Test Plan Prefix		Test Plan #	Material	Test	Cure Cycle	Condition			
	AITR		1392	PWC1	IPS	MH	ETW2			

**Test Group: AITR1392-PWC1-IPS-MH-ETW2**

<b>Material:</b> <u>MTM45-1/CF0525-36%RW</u>	Normalization: <u>NA</u>	Cured Ply Thickness: <u>0.0079</u>	<b>ACG, Inc.</b> <b>Material &amp; Process</b> <b>Laboratory Report</b>
Test Type: <u>±45° In Plane Shear</u>	Condition: <u>ETW2</u>	#Plies: <u>8</u>	
Test Method: <u>MP1115 (ASTMD3518)</u>	Modulus/Poisson's Range: <u>Chord 0.2% to 0.6%</u>		

Specimen ID	Batch	Length, in.	Width, in.	Thickness, in.	Cured Ply Thickness:	Failure Mode	Shear Strength, ksi			Modulus, Msi Measured
							0.2% Offset	@ 5% Strain	Maximum	
AITR1392-PWC1-IPS-A-MH1-ETW2-1	1	10.037	1.0078	0.0672	0.0084		2.582	4.370	NT	0.320
AITR1392-PWC1-IPS-A-MH1-ETW2-2	1	10.025	1.0077	0.0667	0.0083		2.542	4.573	NT	0.318
AITR1392-PWC1-IPS-A-MH1-ETW2-3	1	10.037	1.0081	0.0670	0.0084		2.856	4.492	NT	0.281
AITR1392-PWC1-IPS-A-MH1-ETW2-4	1	10.026	1.0078	0.0663	0.0083		NT	NA	NT	NT
AITR1392-PWC1-IPS-A-MH2-ETW2-1	1	10.074	1.0118	0.0667	0.0083		3.473	4.200	NT	0.343
AITR1392-PWC1-IPS-A-MH2-ETW2-2	1	10.067	1.0087	0.0680	0.0085		2.540	4.143	NT	0.300
AITR1392-PWC1-IPS-A-MH2-ETW2-3	1	10.069	1.0116	0.0669	0.0084		2.410	4.447	NT	0.316
AITR1392-PWC1-IPS-A-MH2-ETW2-4	1	10.076	1.0117	0.0676	0.0085		NT	NA	NT	NT
AITR1392-PWC1-IPS-B-MH1-ETW2-1	2	10.023	1.0095	0.0655	0.0082		2.435	GE	NT	0.352
AITR1392-PWC1-IPS-B-MH1-ETW2-2	2	10.022	1.0095	0.0658	0.0082		2.894	GE	NT	0.332
AITR1392-PWC1-IPS-B-MH1-ETW2-3	2	10.027	1.0098	0.0656	0.0082		2.440	GE	NT	0.380
AITR1392-PWC1-IPS-B-MH1-ETW2-4	2						NT	NA	NT	NT
AITR1392-PWC1-IPS-B-MH2-ETW2-1	2	10.058	1.0085	0.0647	0.0081		2.404	4.575	NT	0.357
AITR1392-PWC1-IPS-B-MH2-ETW2-2	2	10.047	1.0088	0.0651	0.0081		2.544	4.500	NT	0.300
AITR1392-PWC1-IPS-B-MH2-ETW2-3	2	10.038	1.0091	0.0663	0.0083		2.635	4.154	NT	0.272
AITR1392-PWC1-IPS-B-MH2-ETW2-4	2	10.065	1.0086	0.0668	0.0084		2.678	4.379	NT	0.277
AITR1392-PWC1-IPS-C-MH1-ETW2-1	3	10.052	0.9951	0.0663	0.0083		2.398	4.490	NT	0.299
AITR1392-PWC1-IPS-C-MH1-ETW2-2	3	10.050	0.9952	0.0667	0.0083		2.760	4.646	NT	0.293
AITR1392-PWC1-IPS-C-MH1-ETW2-3	3	10.059	0.9954	0.0667	0.0083		2.467	4.479	NT	0.265
AITR1392-PWC1-IPS-C-MH1-ETW2-4	3	10.058	0.9955	0.0681	0.0085		2.354	4.266	NT	0.297
AITR1392-PWC1-IPS-C-MH2-ETW2-1	3	10.051	0.9974	0.0686	0.0086		2.617	4.461	NT	0.278
AITR1392-PWC1-IPS-C-MH2-ETW2-2	3	10.050	0.9976	0.0680	0.0085		2.824	4.839	NT	0.330
AITR1392-PWC1-IPS-C-MH2-ETW2-3	3	10.054	0.9974	0.0664	0.0083		2.987	4.948	NT	0.254
AITR1392-PWC1-IPS-C-MH2-ETW2-4	3	10.053	0.9974	0.0665	0.0083		2.396	4.544	NT	0.315
Minimum		10.0220	0.9951	0.0647	0.0081		2.354	4.143		0.254
Maximum		10.0760	1.0118	0.0686	0.0086		3.473	4.948		0.380
Average		10.0486	1.0048	0.0667	0.0083		2.630	4.473		0.309
Standard Deviation		0.0166	0.0064	0.0010	0.0001		0.267	0.212		0.033
Coefficient of Variation (%)		0.17	0.64	1.46	1.46		10.15	4.74		10.61
No. Specimens		23	23	23	23		21	18		21

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

<b>Input:</b>	Test Plan Prefix		Test Plan #	Material	Test	Cure Cycle	Condition			
	AITR		1392	PWC1	SBS	MH	CTD			

**Test Group: AITR1392-PWC1-SBS-MH-CTD**

<b>Material:</b> <u>MTM45-1/CF0525-36%RW</u>	Normalization:	Cured Ply Thickness:	0.0079	<b>ACG, Inc.</b> <b>Material &amp; Process</b> <b>Laboratory Report</b>
Test Type: <u>Short Beam Shear</u>	Condition:	CTD	#Plies: <u>18</u>	
Test Method: <u>MP1116 (ASTMD2344)</u>	Span (4t):	0.59		

Specimen ID	Batch	Length, in.	Width, in.	Thickness, in.	Cured Ply Thickness:	Ultimate Load, lb.	Failure Mode	Ultimate Strength, ksi	
								Measured	Normalized
AITR1392-PWC1-SBS-A-MH1-CTD-1	1	1.506	0.2598	0.1436	0.0080	587.82	ILS/FCC	11.814	11.933
AITR1392-PWC1-SBS-A-MH1-CTD-2	1	1.509	0.2592	0.1427	0.0079	585.62	ILS/FCC	11.873	11.915
AITR1392-PWC1-SBS-A-MH1-CTD-3	1	1.503	0.2593	0.1426	0.0079	597.65	ILS/FCC	12.124	12.155
AITR1392-PWC1-SBS-A-MH1-CTD-4	1	1.501	0.2593	0.1434	0.0080	NT			
AITR1392-PWC1-SBS-A-MH2-CTD-1	1	1.503	0.2552	0.1479	0.0082	596.35	ILS/FCC	11.850	12.325
AITR1392-PWC1-SBS-A-MH2-CTD-2	1	1.501	0.2561	0.1492	0.0083	577.77	ILS/FCC	11.345	11.900
AITR1392-PWC1-SBS-A-MH2-CTD-3	1	1.505	0.2562	0.1482	0.0082	591.90	ILS/FCC	11.690	12.184
AITR1392-PWC1-SBS-A-MH2-CTD-4	1	1.502	0.2555	0.1477	0.0082	NT			
AITR1392-PWC1-SBS-B-MH1-CTD-1	2	1.504	0.2525	0.1435	0.0080	561.00	ILS/FCC	11.612	11.718
AITR1392-PWC1-SBS-B-MH1-CTD-2	2	1.508	0.2525	0.1440	0.0080	604.00	ILS/FCC	12.459	12.616
AITR1392-PWC1-SBS-B-MH1-CTD-3	2	1.510	0.2530	0.1440	0.0080	618.00	ILS/FCC	12.722	12.883
AITR1392-PWC1-SBS-B-MH1-CTD-4	2	1.507	0.2520	0.1450	0.0081	NT			
AITR1392-PWC1-SBS-B-MH2-CTD-1	2	1.517	0.2535	0.1435	0.0080	588.00	ILS/FCC	12.123	12.234
AITR1392-PWC1-SBS-B-MH2-CTD-2	2	1.508	0.2530	0.1435	0.0080	586.00	ILS/FCC	12.106	12.216
AITR1392-PWC1-SBS-B-MH2-CTD-3	2	1.517	0.2530	0.1435	0.0080	598.00	ILS/FCC	12.354	12.466
AITR1392-PWC1-SBS-B-MH2-CTD-4	2	1.507	0.2535	0.1440	0.0080	NT			
AITR1392-PWC1-SBS-C-MH1-CTD-1	3	1.506	0.2570	0.1515	0.0084	541.00	ILS/FCC	10.421	11.103
AITR1392-PWC1-SBS-C-MH1-CTD-2	3	1.504	0.2560	0.1520	0.0084	568.00	ILS/FCC	10.948	11.702
AITR1392-PWC1-SBS-C-MH1-CTD-3	3	1.505	0.2550	0.1509	0.0084	555.00	ILS/FCC	10.817	11.479
AITR1392-PWC1-SBS-C-MH1-CTD-4	3	1.506	0.2560	0.1505	0.0084	NT			
AITR1392-PWC1-SBS-C-MH2-CTD-1	3	1.506	0.2560	0.1510	0.0084	596.00	ILS/FCC	11.564	12.279
AITR1392-PWC1-SBS-C-MH2-CTD-2	3	1.506	0.2570	0.1505	0.0084	605.00	ILS/FCC	11.731	12.416
AITR1392-PWC1-SBS-C-MH2-CTD-3	3	1.507	0.2550	0.1505	0.0084	534.00	ILS/FCC	10.436	11.045
AITR1392-PWC1-SBS-C-MH2-CTD-4	3	1.508	0.2520	0.1505	0.0084	NT			
Minimum		1.5010	0.2520	0.1426	0.0079	534.00		10.421	11.045
Maximum		1.5165	0.2598	0.1520	0.0084	618.00		12.722	12.883
Average		1.5064	0.2553	0.1468	0.0082	582.84		11.666	12.032
Standard Deviation		0.0039	0.0024	0.0035	0.0002	22.71		0.657	0.488
Coefficient of Variation (%)		0.26	0.96	2.35	2.35	3.90		5.64	4.06
No. Specimens		24	24	24	24	18		18	18

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

<b>Input:</b>	Test Plan Prefix		Test Plan #	Material	Test	Cure Cycle	Condition		
	AITR		1392	PWC1	SBS	MH	RTD		

**Test Group: AITR1392-PWC1-SBS-MH-RTD**

<b>Material:</b>	<b>MTM45-1/CF0525-36%RW</b>	Normalization:	Cured Ply Thickness:	0.0079	<b>ACG, Inc. Material &amp; Process Laboratory Report</b>					
Test Type:	Short Beam Shear	Condition:	RTD	#Plies:						18
Test Method:	MP1116 (ASTMD2344)	Span (4t):	0.59							

Specimen ID	Batch	Length, in.	Width, in.	Thickness, in.	Cured Ply Thickness:	Ultimate Load, lb.	Failure Mode	Ultimate Strength, ksi	
								Measured	Normalized
AITR1392-PWC1-SBS-A-MH1-RTD-1	1	1.501	0.2596	0.1438	0.0080	532.54	FCC/ILS	10.701	10.821
AITR1392-PWC1-SBS-A-MH1-RTD-2	1	1.502	0.2584	0.1424	0.0079	515.67	FCC/ILS	10.508	10.525
AITR1392-PWC1-SBS-A-MH1-RTD-3	1	1.501	0.2597	0.1433	0.0080	507.25	FCC/ILS	10.221	10.300
AITR1392-PWC1-SBS-A-MH1-RTD-4	1	1.502	0.2587	0.1431	0.0079	NT			
AITR1392-PWC1-SBS-A-MH2-RTD-1	1	1.504	0.2558	0.1473	0.0082	512.21	FCC/ILS	10.197	10.563
AITR1392-PWC1-SBS-A-MH2-RTD-2	1	1.503	0.2563	0.1487	0.0083	531.56	FCC/ILS	10.462	10.940
AITR1392-PWC1-SBS-A-MH2-RTD-3	1	1.504	0.2562	0.1491	0.0083	519.64	FCC/ILS	10.201	10.696
AITR1392-PWC1-SBS-A-MH2-RTD-4	1	1.501	0.2566	0.1464	0.0081	NT			
AITR1392-PWC1-SBS-B-MH1-RTD-1	2	1.509	0.2555	0.1455	0.0081	521.00	ILS	10.511	10.755
AITR1392-PWC1-SBS-B-MH1-RTD-2	2	1.509	0.2545	0.1445	0.0080	529.00	ILS	10.789	10.963
AITR1392-PWC1-SBS-B-MH1-RTD-3	2	1.505	0.2550	0.1460	0.0081	541.00	ILS	10.898	11.190
AITR1392-PWC1-SBS-B-MH1-RTD-4	2	1.508	0.2550	0.1455	0.0081	NT			
AITR1392-PWC1-SBS-B-MH2-RTD-1	2	1.516	0.2550	0.1445	0.0080	540.00	ILS	10.991	11.169
AITR1392-PWC1-SBS-B-MH2-RTD-2	2	1.513	0.2550	0.1440	0.0080	516.00	ILS	10.539	10.673
AITR1392-PWC1-SBS-B-MH2-RTD-3	2	1.507	0.2545	0.1440	0.0080	534.00	ILS	10.928	11.067
AITR1392-PWC1-SBS-B-MH2-RTD-4	2	1.511	0.2550	0.1450	0.0081	NT			
AITR1392-PWC1-SBS-C-MH1-RTD-1	3	1.505	0.2550	0.1520	0.0084	542.00	ILS/FCC	10.488	11.210
AITR1392-PWC1-SBS-C-MH1-RTD-2	3	1.505	0.2550	0.1490	0.0083	501.00	ILS	9.889	10.362
AITR1392-PWC1-SBS-C-MH1-RTD-3	3	1.505	0.2550	0.1480	0.0082	495.00	ILS/FCC	9.837	10.238
AITR1392-PWC1-SBS-C-MH1-RTD-4	3	1.505	0.2550	0.1480	0.0082	NT			
AITR1392-PWC1-SBS-C-MH2-RTD-1	3	1.506	0.2520	0.1490	0.0083	491.00	ILS/FCC	9.807	10.276
AITR1392-PWC1-SBS-C-MH2-RTD-2	3	1.506	0.2530	0.1500	0.0083	520.00	ILS/FCC	10.277	10.840
AITR1392-PWC1-SBS-C-MH2-RTD-3	3	1.506	0.2550	0.1490	0.0083	517.00	ILS/FCC	10.205	10.693
AITR1392-PWC1-SBS-C-MH2-RTD-4	3	1.507	0.2540	0.1490	0.0083	NT			
Minimum		1.5010	0.2520	0.1424	0.0079	491.00		9.807	10.238
Maximum		1.5155	0.2597	0.1520	0.0084	542.00		10.991	11.210
Average		1.5058	0.2556	0.1465	0.0081	520.33		10.414	10.738
Standard Deviation		0.0037	0.0019	0.0026	0.0001	15.31		0.365	0.317
Coefficient of Variation (%)		0.25	0.73	1.77	1.77	2.94		3.50	2.95
No. Specimens		24	24	24	24	18		18	18

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

























<b>Input:</b>	Test Plan Prefix		Test Plan #	Material	Test	Cure Cycle	Condition							
	AITR		1392	PWC1	UNC1	MH	RTD							

**Test Group: AITR1392-PWC1-UNC1-MH-RTD**

<b>Material:</b>	<b>MTM45-1/CF0525-36%RW</b>	Normalization:	Cured Ply Thickness:	0.0079	#Plies:	24	<b>ACG, Inc. Material &amp; Process Laboratory Report</b>						
Test Type:	Quasi Unnotched Compression	Condition:	RTD										
Test Method:	MP1114 (ASTMD6641)	Modulus/Poisson's Range:	Chord 0.1% to 0.3%										

Specimen ID	Batch	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-PWC1-UNC1-A-MH1-RTD-1	1	5.507	0.5060	0.1930	0.0080	6805.00	BGM	69.682	70.932	5.51	5.607	0.308
AITR1392-PWC1-UNC1-A-MH1-RTD-2	1	5.508	0.5060	0.1900	0.0079	7069.00	BGB	73.528	73.683	5.72	5.735	0.344
AITR1392-PWC1-UNC1-A-MH1-RTD-3	1	5.507	0.5050	0.1920	0.0080	7809.00	BGM	80.538	81.558	5.67	5.741	0.283
AITR1392-PWC1-UNC1-A-MH1-RTD-4	1	5.507	0.5060	0.1930	0.0080	NT				NT		NT
AITR1392-PWC1-UNC1-A-MH2-RTD-1	1	5.507	0.5050	0.1960	0.0082	7266.00	BGM	73.409	75.887	6.29	6.500	0.242
AITR1392-PWC1-UNC1-A-MH2-RTD-2	1	5.507	0.5050	0.1920	0.0080	7564.00	BGM	78.012	78.999	5.87	5.941	0.250
AITR1392-PWC1-UNC1-A-MH2-RTD-3	1	5.508	0.5050	0.1940	0.0081	6860.00	HGM	70.021	71.646	5.59	5.715	0.240
AITR1392-PWC1-UNC1-A-MH2-RTD-4	1	5.507	0.5050	0.1920	0.0080	NT				NT		NT
AITR1392-PWC1-UNC1-E-MH1-RTD-1	5	5.507	0.5046	0.1970	0.0082	7605.00	BGM	76.504	79.490	5.68	5.899	0.323
AITR1392-PWC1-UNC1-E-MH1-RTD-2	5	5.508	0.5050	0.1927	0.0080	7146.00	BGM	73.433	74.633	5.54	5.633	0.323
AITR1392-PWC1-UNC1-E-MH1-RTD-3	5	5.508	0.5052	0.1987	0.0083	7339.00	BGM	73.110	76.619	5.47	5.730	0.333
AITR1392-PWC1-UNC1-E-MH1-RTD-4	5	5.508	0.5042	0.1935	0.0081	NT				NT		NT
AITR1392-PWC1-UNC1-E-MH2-RTD-1	5	5.509	0.5052	0.1950	0.0081	7285.00	BGT	73.949	76.055	5.39	5.545	0.226
AITR1392-PWC1-UNC1-E-MH2-RTD-2	5	5.506	0.5055	0.1973	0.0082	6742.00	BGM	67.599	70.344	4.84	5.033	0.322
AITR1392-PWC1-UNC1-E-MH2-RTD-3	5	5.508	0.5050	0.1933	0.0081	7059.00	BGM	72.314	73.725	5.44	5.551	0.312
AITR1392-PWC1-UNC1-E-MH2-RTD-4	5	5.508	0.5050	0.1954	0.0081	NT				NT		NT
AITR1392-PWC1-UNC1-D-MH1-RTD-1	4	5.506	0.5060	0.1960	0.0082	6223.00	BGM	62.747	64.865	5.37	5.555	0.353
AITR1392-PWC1-UNC1-D-MH1-RTD-2	4	5.507	0.5070	0.1970	0.0082	7221.00	BGM	72.297	75.119	5.56	5.781	0.345
AITR1392-PWC1-UNC1-D-MH1-RTD-3	4	5.507	0.5020	0.1970	0.0082	7276.00	BGM	73.574	76.445	5.13	5.328	0.269
AITR1392-PWC1-UNC1-D-MH1-RTD-4	4	5.507	0.5040	0.1970	0.0082	NT				NT		NT
AITR1392-PWC1-UNC1-D-MH2-RTD-1	4	5.505	0.5070	0.1990	0.0083	7171.00	HGM	71.075	74.599	5.41	5.678	0.338
AITR1392-PWC1-UNC1-D-MH2-RTD-2	4	5.508	0.5070	0.1980	0.0083	7179.00	BGM	71.514	74.682	5.24	5.470	0.221
AITR1392-PWC1-UNC1-D-MH2-RTD-3	4	5.505	0.5070	0.1970	0.0082	7103.00	BGT	71.116	73.892	5.25	5.455	0.304
AITR1392-PWC1-UNC1-D-MH2-RTD-4	4	5.507	0.5070	0.1980	0.0083	NT				NT		NT
Minimum		5.5050	0.5020	0.1900	0.0079	6223.00		62.747	64.865	4.837	5.033	0.2206
Maximum		5.5090	0.5070	0.1990	0.0083	7809.00		80.538	81.558	6.288	6.500	0.3534
Average		5.5072	0.5054	0.1952	0.0081	7151.22		72.468	74.621	5.498	5.661	0.2965
Standard Deviation		0.0010	0.0012	0.0025	0.0001	355.48		3.878	3.760	0.309	0.297	0.0444
Coefficient of Variation (%)		0.02	0.23	1.29	1.29	4.97		5.35	5.04	5.63	5.24	14.98
No. Specimens		24	24	24	24	18		18	18	18	18	18

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

<b>Input:</b>	Test Plan Prefix		Test Plan #	Material	Test	Cure Cycle	Condition					
	AITR		1392	PWC1	UNC1	MH	ETW					

**Test Group:** AITR1392-PWC1-UNC1-MH-ETW

<b>Material:</b>	<u>MTM45-1/CF0525-36%RW</u>	Normalization:	Cured Ply Thickness:	<u>0.0079</u>	#Plies:	<u>24</u>	<b>ACG, Inc. Material &amp; Process Laboratory Report</b>
Test Type:	<u>Quasi Unnotched Compression</u>	Condition:	<u>ETW</u>				
Test Method:	<u>MP1114 (ASTMD6641)</u>	Modulus/Poisson's Range:	<u>Chord 0.1% to 0.3%</u>				

Specimen ID	Batch	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-PWC1-UNC1-A-MH1-ETW-1	1	5.508	0.5061	0.1928	0.0080	5542.00	BGT	56.797	57.755	6.82	6.935	0.217
AITR1392-PWC1-UNC1-A-MH1-ETW-2	1	5.510	0.5070	0.1925	0.0080	5342.00	HGT	54.735	55.572	6.70	6.802	0.390
AITR1392-PWC1-UNC1-A-MH1-ETW-3	1	5.508	0.5046	0.1936	0.0081	5644.00	BGM	57.774	58.993	5.94	6.067	0.282
AITR1392-PWC1-UNC1-A-MH1-ETW-4	1	5.511	0.5069	0.1919	0.0080	NT				NT	NT	NT
AITR1392-PWC1-UNC1-A-MH2-ETW-1	1	5.507	0.5062	0.1953	0.0081	5314.00	HGB	53.752	55.368	6.61	6.806	0.413
AITR1392-PWC1-UNC1-A-MH2-ETW-2	1	5.508	0.5045	0.1944	0.0081	5108.00	BGM	52.083	53.401	6.13	6.281	0.308
AITR1392-PWC1-UNC1-A-MH2-ETW-3	1	5.509	0.5054	0.1947	0.0081	5397.00	BGM	54.847	56.322	6.45	6.621	0.339
AITR1392-PWC1-UNC1-A-MH2-ETW-4	1	5.507	0.5055	0.1933	0.0081	NT						NT
Minimum		5.5070	0.5045	0.1919	0.0080	5108.00		52.083	53.401	5.942	6.067	0.2169
Maximum		5.5110	0.5070	0.1953	0.0081	5644.00		57.774	58.993	6.820	6.935	0.4127
Average		5.5085	0.5058	0.1936	0.0081	5391.17		54.998	56.235	6.440	6.585	0.3249
Standard Deviation		0.0014	0.0009	0.0012	0.0000	187.22		2.054	1.957	0.342	0.341	0.0720
Coefficient of Variation (%)		0.03	0.19	0.60	0.60	3.47		3.73	3.48	5.32	5.17	22.16
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

UNC1-A-MH1-ETW-1: Modulus 4200 to 6200

Input:	Test Plan Prefix		Test Plan #	Material	Test	Cure Cycle	Condition						
	AITR		1392	PWC1	UNC1	MH	ETW2						

**Test Group: AITR1392-PWC1-UNC1-MH-ETW2**

Material:	<u><b>MTM45-1/CF0525-36%RW</b></u>	Normalization:	Cured Ply Thickness:	<u>0.0079</u>	#Plies:	<u>24</u>	<b>ACG, Inc. Material &amp; Process Laboratory Report</b>
Test Type:	<u>Quasi Unnotched Compression</u>	Condition:	<u>ETW2</u>				
Test Method:	<u>MP1114 (ASTMD6641)</u>	Modulus/Poisson's Range:	<u>Chord 0.1% to 0.3%</u>				

Specimen ID	Batch	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-PWC1-UNC1-A-MH1-ETW2-1	1	5.507	0.5071	0.1910	0.0080	4524.00	BGM	46.717	47.053	GE		GE
AITR1392-PWC1-UNC1-A-MH1-ETW2-2	1	5.507	0.5065	0.1918	0.0080	4696.00	HGB	48.328	48.897	6.59	6.669	0.389
AITR1392-PWC1-UNC1-A-MH1-ETW2-3	1	5.507	0.5067	0.1917	0.0080	4777.00	BGM	49.174	49.727	5.62	5.683	0.274
AITR1392-PWC1-UNC1-A-MH1-ETW2-4	1	5.507	0.5066	0.1913	0.0080	NT				NT		NT
AITR1392-PWC1-UNC1-A-MH2-ETW2-1	1	5.506	0.5058	0.1904	0.0079	4699.00	BGB	48.802	48.999	6.70	6.725	0.313
AITR1392-PWC1-UNC1-A-MH2-ETW2-2	1	5.508	0.5057	0.1929	0.0080	4448.00	HGB	45.602	46.388	5.86	5.962	0.401
AITR1392-PWC1-UNC1-A-MH2-ETW2-3	1	5.504	0.5055	0.1933	0.0081	4522.00	HGM	46.270	47.181	6.73	6.864	0.315
AITR1392-PWC1-UNC1-A-MH2-ETW2-4	1	5.506	0.5055	0.1943	0.0081	NT				NT		NT
AITR1392-PWC1-UNC1-E-MH1-ETW2-1	5	5.510	0.5042	0.1953	0.0081	4482.00	HGB	45.516	46.885	GE		GE
AITR1392-PWC1-UNC1-E-MH1-ETW2-2	5	5.510	0.5052	0.1975	0.0082	4478.00	HGM	44.880	46.750	GE		GE
AITR1392-PWC1-UNC1-E-MH1-ETW2-3	5	5.512	0.5057	0.1955	0.0081	4448.00	BGB	44.991	46.391	6.65	6.854	0.405
AITR1392-PWC1-UNC1-E-MH1-ETW2-4	5	5.511	0.5057	0.1934	0.0081	NT				NT		NT
AITR1392-PWC1-UNC1-E-MH2-ETW2-1	5	5.511	0.5044	0.1946	0.0081	4314.00	BGM	43.950	45.109	GE		GE
AITR1392-PWC1-UNC1-E-MH2-ETW2-2	5	5.505	0.5010	0.1958	0.0082	3956.00	HGM	40.328	41.647	6.66	6.874	0.410
AITR1392-PWC1-UNC1-E-MH2-ETW2-3	5	5.508	0.5049	0.1982	0.0083	3986.00	HGM	39.832	41.638	GE		GE
AITR1392-PWC1-UNC1-E-MH2-ETW2-4	5	5.505	0.5058	0.1946	0.0081	NT				NT		NT
AITR1392-PWC1-UNC1-D-MH1-ETW2-1	4	5.508	0.5066	0.1993	0.0083	4155.00	HGM	41.153	43.258	GE		GE
AITR1392-PWC1-UNC1-D-MH1-ETW2-2	4	5.507	0.5072	0.1940	0.0081	3645.00	HGB	37.044	37.904	GE		GE
AITR1392-PWC1-UNC1-D-MH1-ETW2-3	4	5.506	0.5072	0.1964	0.0082	3892.00	BGM	39.071	40.472	GE		GE
AITR1392-PWC1-UNC1-D-MH1-ETW2-4	4	5.505	0.5061	0.1951	0.0081	3782.00	HMB/BGM	38.303	39.414	GE		GE
AITR1392-PWC1-UNC1-D-MH2-ETW2-1	4	5.506	0.5066	0.1962	0.0082	3793.00	HGM	38.152	39.487	GE		GE
AITR1392-PWC1-UNC1-D-MH2-ETW2-2	4	5.510	0.5079	0.1985	0.0083	3836.00	HGM	38.042	39.835	GE		GE
AITR1392-PWC1-UNC1-D-MH2-ETW2-3	4	5.506	0.5069	0.2001	0.0083	3950.00	HGT	38.947	41.097	GE		GE
AITR1392-PWC1-UNC1-D-MH2-ETW2-4	4	5.506	0.5078	0.1975	0.0082	NT				NT		NT
Minimum		5.5040	0.5010	0.1904	0.0079	3645.00		37.044	37.904	5.620	5.683	0.2739
Maximum		5.5120	0.5079	0.2001	0.0083	4777.00		49.174	49.727	6.732	6.874	0.4098
Average		5.5074	0.5059	0.1949	0.0081	4230.68		42.900	44.112	6.401	6.519	0.3582
Standard Deviation		0.0022	0.0014	0.0027	0.0001	361.87		4.110	3.786	0.459	0.489	0.0558
Coefficient of Variation (%)		0.04	0.28	1.38	1.38	8.55		9.58	8.58	7.16	7.49	15.58
No. Specimens		24	24	24	24	19		19	19	7	7	7

**Notes:**  
 NT=Not Tested  
 NR=No Result  
 GE=Gage Error  
 FM=Failure Mode Unacceptable  
 UNC1-D-MH2-ETW2-2: Modulus from 700 to 2700















<b>Input:</b>	Test Plan Prefix		Test Plan #	Material	Test	Cure Cycle	Condition				
	AITR		1392	PWC1	OHT1	MH	CTD				

**Test Group: AITR1392-PWC1-OHT1-MH-CTD**

<b>Material:</b> MTM45-1/CF0525-36%RW	Normalization: NA	Cured Ply Thickness: 0.0079	<b>ACG, Inc. Material &amp; Process Laboratory Report</b>
Test Type: Open-Hole Tension Layup 1	Condition: CTD	#Plies: 16	
Test Method: MP1117 (ASTMD5766)			

Specimen ID	Batch	Length, in	Width, in	Thickness, in	Cured Ply Thickness:	Diameter	Width/Diameter	Diameter/Thickness	Ultimate Load, lb	Ultimate Strength, ksi	norm	Failure Mode
AITR1392-PWC1-OHT1-A-MH1-CTD-1	1	12.0100	1.5050	0.1307	0.0082	0.2480	91.8898	0.0868	10145.80	51.58	53.334	LGM
AITR1392-PWC1-OHT1-A-MH1-CTD-2	1	12.0100	1.5010	0.1309	0.0082	0.2493	91.7494	0.0872	10173.47	51.78	53.622	LGM
AITR1392-PWC1-OHT1-A-MH1-CTD-3	1	12.0100	1.5020	0.1319	0.0082	0.2489	91.0538	0.0878	10061.08	50.78	52.994	LGM
AITR1392-PWC1-OHT1-A-MH1-CTD-4	1	12.0100	1.5020	0.1303	0.0081	0.2486	92.1719	0.0868	NT			
AITR1392-PWC1-OHT1-A-MH2-CTD-1	1	12.0060	1.5090	0.1306	0.0082	0.2497	91.9296	0.0865	10164.92	51.58	53.293	LGM
AITR1392-PWC1-OHT1-A-MH2-CTD-2	1	12.0070	1.5060	0.1312	0.0082	0.2494	91.5168	0.0871	10109.97	51.17	53.110	LGM
AITR1392-PWC1-OHT1-A-MH2-CTD-3	1	12.0070	1.5090	0.1305	0.0082	0.2500	92.0077	0.0865	10098.31	51.28	52.943	LGM
AITR1392-PWC1-OHT1-A-MH2-CTD-4	1	12.0070	1.5060	0.1302	0.0081	0.2492	92.2197	0.0865	NT			
AITR1392-PWC1-OHT1-E-MH1-CTD-1	5	12.0100	1.5060	0.1295	0.0081	0.2480	92.7413	0.0860	9916.99	50.85	52.096	LGM
AITR1392-PWC1-OHT1-E-MH1-CTD-2	5	12.0090	1.5020	0.1311	0.0082	0.2484	91.6018	0.0873	10011.64	50.84	52.734	LGM
AITR1392-PWC1-OHT1-E-MH1-CTD-3	5	12.0100	1.5020	0.1300	0.0081	0.2476	92.3846	0.0866	9681.46	49.58	50.995	LGM
AITR1392-PWC1-OHT1-E-MH1-CTD-4	5	12.0100	1.5050	0.1288	0.0081	0.2479	93.2453	0.0856	NT			
AITR1392-PWC1-OHT1-E-MH2-CTD-1	5	12.0070	1.5080	0.1320	0.0083	0.2480	90.9621	0.0875	9946.98	49.97	52.185	LGM
AITR1392-PWC1-OHT1-E-MH2-CTD-2	5	12.0080	1.5070	0.1330	0.0083	0.2480	90.2857	0.0883	9597.94	47.89	50.387	LGM
AITR1392-PWC1-OHT1-E-MH2-CTD-3	5	12.0090	1.5070	0.1330	0.0083	0.2480	90.2932	0.0883	10073.68	50.26	52.884	LGM
AITR1392-PWC1-OHT1-E-MH2-CTD-4	5	12.0070	1.5070	0.1320	0.0083	0.2480	90.9621	0.0876	NT			
AITR1392-PWC1-OHT1-D-MH1-CTD-1	4	12.0060	1.5050	0.1310	0.0082	0.2490	91.6489	0.0870	9154.11	46.43	48.121	LGM
AITR1392-PWC1-OHT1-D-MH1-CTD-2	4	12.0050	1.5060	0.1300	0.0081	0.2491	92.3462	0.0863	9617.06	49.12	50.521	LGM
AITR1392-PWC1-OHT1-D-MH1-CTD-3	4	12.0060	1.5090	0.1310	0.0082	0.2489	91.6489	0.0868	9598.28	48.55	50.322	LGM
AITR1392-PWC1-OHT1-D-MH1-CTD-4	4	12.0070	1.5060	0.1300	0.0081	0.2493	92.3615	0.0863	NT			
AITR1392-PWC1-OHT1-D-MH2-CTD-1	4	12.0070	1.5070	0.1290	0.0081	0.2508	93.0775	0.0856	9448.90	48.60	49.604	LGM
AITR1392-PWC1-OHT1-D-MH2-CTD-2	4	12.0050	1.5100	0.1320	0.0083	0.2505	90.9470	0.0874	8975.67	45.03	47.027	LGM
AITR1392-PWC1-OHT1-D-MH2-CTD-3	4	12.0070	1.5060	0.1310	0.0082	0.2508	91.6565	0.0870	9372.20	47.51	49.235	LGM
AITR1392-PWC1-OHT1-D-MH2-CTD-4	4	12.0070	1.5060	0.1300	0.0081	0.2510	92.3615	0.0863	NT			
Minimum		12.0050	1.5010	0.1288	0.0081	0.2476	90.2857	0.0856	8975.6730	45.0315	47.0265	
Maximum		12.0100	1.5100	0.1330	0.0083	0.2510	93.2453	0.0883	10173.4670	51.7784	53.6218	
Average		12.0078	1.5058	0.1308	0.0082	0.2490	91.7943	0.0869	9786.0252	49.6005	51.4114	
Standard Deviation		0.0017	0.0025	0.0011	0.0001	0.0010	0.7718	0.0007	370.1299	1.9325	1.9720	
Coefficient of Variation (%)		0.01	0.16	0.84	0.84	0.41	0.84	0.83	3.78	3.90	3.84	
No. Specimens		24	24	24	24	24	24	24	18	18	18	

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

<b>Input:</b>	Test Plan Prefix		Test Plan #	Material	Test	Cure Cycle	Condition				
	AITR		1392	PWC1	OHT1	MH	RTD				

**Test Group: AITR1392-PWC1-OHT1-MH-RTD**

<b>Material:</b> <b>MTM45-1/CF0525-36%RW</b>	Normalization: <u>NA</u>	Cured Ply Thickness: <u>0.0079</u>	<b>ACG, Inc.</b> <b>Material &amp; Process</b> <b>Laboratory Report</b>
Test Type: <u>Open-Hole Tension Layup 1</u>	Condition: <u>RTD</u>	#Plies: <u>16</u>	
Test Method: <u>MP1117 (ASTMD5766)</u>			

Specimen ID	Length, in	Width, in	Thickness, in	Cured Ply Thickness:	Diameter	Width/Diameter	Diameter/Thickness	Ultimate Load, lb	Ultimate Strength, ksi	norm	Failure Mode
AITR1392-PWC1-OHT1-A-MH1-RTD-1	12.0080	1.5020	0.1305	0.0082	0.2485	92.0153	0.0869	10446.93	53.30	55.026	LGM
AITR1392-PWC1-OHT1-A-MH1-RTD-2	12.0070	1.5010	0.1310	0.0082	0.2493	91.6565	0.0873	10659.15	54.21	56.182	LGM
AITR1392-PWC1-OHT1-A-MH1-RTD-3	12.0070	1.5010	0.1321	0.0083	0.2487	90.8933	0.0880	10453.01	52.72	55.095	LGM
AITR1392-PWC1-OHT1-A-MH1-RTD-4	12.0060	1.4970	0.1310	0.0082	0.2480	91.6489	0.0875	NT			
AITR1392-PWC1-OHT1-A-MH2-RTD-1	12.0000	1.5050	0.1290	0.0081	0.2493	93.0233	0.0857	10847.77	55.87	57.024	LGM
AITR1392-PWC1-OHT1-A-MH2-RTD-2	12.0000	1.5060	0.1290	0.0081	0.2506	93.0233	0.0857	10710.31	55.13	56.264	LGM
AITR1392-PWC1-OHT1-A-MH2-RTD-3	12.0000	1.5070	0.1290	0.0081	0.2496	93.0233	0.0856	10351.87	53.25	54.345	AGM
AITR1392-PWC1-OHT1-A-MH2-RTD-4	12.0000		0.1310	0.0082	0.2489	91.6031		NT			
AITR1392-PWC1-OHT1-E-MH1-RTD-1	12.0090	1.5030	0.1289	0.0081	0.2479	93.1652	0.0858	10253.91	52.93	53.974	LGM
AITR1392-PWC1-OHT1-E-MH1-RTD-2	12.0090	1.5060	0.1291	0.0081	0.2484	93.0209	0.0857	10129.22	52.10	53.211	LGM
AITR1392-PWC1-OHT1-E-MH1-RTD-3	12.0090	1.5060	0.1284	0.0080	0.2488	93.5280	0.0853	10618.17	54.91	55.780	LGM
AITR1392-PWC1-OHT1-E-MH1-RTD-4	12.0090	1.5060	0.1303	0.0081	0.2483	92.1642	0.0865	NT			
AITR1392-PWC1-OHT1-E-MH2-RTD-1	12.0100	1.5060	0.1320	0.0083	0.2482	90.9848	0.0876	10037.24	50.49	52.728	LGM
AITR1392-PWC1-OHT1-E-MH2-RTD-2	12.0080	1.5070	0.1320	0.0083	0.2481	90.9697	0.0876	10453.06	52.55	54.876	LGM
AITR1392-PWC1-OHT1-E-MH2-RTD-3	12.0090	1.5030	0.1330	0.0083	0.2482	90.2932	0.0885	10170.36	50.88	53.534	LGM
AITR1392-PWC1-OHT1-E-MH2-RTD-4	12.0090	1.5080	0.1330	0.0083	0.2481	90.2932	0.0882	NT			
AITR1392-PWC1-OHT1-D-MH1-RTD-1	12.0070	1.5060	0.1280	0.0080	0.2491	93.8047	0.0850	9644.70	50.03	50.666	LGM
AITR1392-PWC1-OHT1-D-MH1-RTD-2	12.0080	1.5060	0.1280	0.0080	0.2491	93.8125	0.0850	9302.45	48.26	48.868	LGM
AITR1392-PWC1-OHT1-D-MH1-RTD-3	12.0080	1.5060	0.1310	0.0082	0.2495	91.6641	0.0870	9331.82	47.30	49.022	LGM
AITR1392-PWC1-OHT1-D-MH1-RTD-4	12.0080	1.5060	0.1300	0.0081	0.2494	92.3692	0.0863	NT			
AITR1392-PWC1-OHT1-D-MH2-RTD-1	12.0090	1.5060	0.1310	0.0082	0.2490	91.6718	0.0870	9488.43	48.09	49.845	LGM
AITR1392-PWC1-OHT1-D-MH2-RTD-2	12.0070	1.5050	0.1320	0.0083	0.2510	90.9621	0.0877	9452.09	47.58	49.687	LGM
AITR1392-PWC1-OHT1-D-MH2-RTD-3	12.0080	1.5060	0.1300	0.0081	0.2510	92.3692	0.0863	9497.42	48.51	49.892	LGM
AITR1392-PWC1-OHT1-D-MH2-RTD-4	12.0080	1.5050	0.1310	0.0082	0.2500	91.6641	0.0870	NT			
Minimum	12.0000	1.4970	0.1280	0.0080	0.2479	90.2932	0.0850	9302.4450	47.3010	48.868	
Maximum	12.0100	1.5080	0.1330	0.0083	0.2510	93.8125	0.0885	10847.7720	55.8746	57.024	
Average	12.0068	1.5048	0.1304	0.0082	0.2490	92.0677	0.0867	10102.6607	51.5615	53.112	
Standard Deviation	0.0032	0.0025	0.0015	0.0001	0.0009	1.0542	0.0011	518.4578	2.7664	2.750	
Coefficient of Variation (%)	0.03	0.17	1.15	1.15	0.36	1.15	1.22	5.13	5.37	5.18	
No. Specimens	24	23	24	24	24	24	23	18	18	18	

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







<b>Input:</b>	Test Plan Prefix		Test Plan #	Material	Test	Cure Cycle	Condition					
	AITR		1392	PWC1	OHT2	MH	RTD					

**Test Group: AITR1392-PWC1-OHT2-MH-RTD**

<b>Material:</b> <u>MTM45-1/CF0525-36%RW</u> <b>Test Type:</b> <u>Open-Hole Tension Layup 2</u> <b>Test Method:</b> <u>MP1117 (ASTMD5766)</u>	<b>Normalization:</b> NA <b>Condition:</b> <u>RTD</u>	<b>Cured Ply Thickness:</b> <u>0.0079</u> <b>#Plies:</b> <u>20</u>	<b>ACG, Inc.</b> <b>Material &amp; Process</b> <b>Laboratory Report</b>
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Specimen ID	Batch	Length, in	Width, in	Thickness, in	Cured Ply Thickness:	Diameter	Width/Diameter	Diameter/Thickness	Ultimate Load, lb	Ultimate Strength, ksi	norm	Failure Mode
AITR1392-PWC1-OHT2-A-MH1-RTD-1	1	12.0080	1.5050	0.1640	0.0082	0.2486	73.2195	0.1090	10295.33	41.71	43.296	AGM
AITR1392-PWC1-OHT2-A-MH1-RTD-2	1	12.0070	1.5070	0.1630	0.0082	0.2481	73.6626	0.1082	9975.79	40.61	41.896	AGM
AITR1392-PWC1-OHT2-A-MH1-RTD-3	1	12.0060	1.5050	0.1620	0.0081	0.2476	74.1111	0.1076	10220.86	41.92	42.983	AGM
AITR1392-PWC1-OHT2-A-MH1-RTD-4	1	12.0060	1.5060	0.1620	0.0081	0.2470	74.1111	0.1076	10096.34	41.38	42.431	AGM
AITR1392-PWC1-OHT2-A-MH2-RTD-1	1	12.0050	1.5060	0.1640	0.0082	0.2483	73.2012	0.1089	10225.21	41.40	42.972	AGM
AITR1392-PWC1-OHT2-A-MH2-RTD-2	1	12.0060	1.5000	0.1620	0.0081	0.2483	74.1111	0.1080	10302.98	42.40	43.472	AGM
AITR1392-PWC1-OHT2-A-MH2-RTD-3	1	12.0050	1.5060	0.1610	0.0081	0.2484	74.5652	0.1069	10378.53	42.80	43.617	AGM
AITR1392-PWC1-OHT2-A-MH2-RTD-4	1	12.0060	1.5060	0.1640	0.0082	0.2485	73.2073	0.1089	10408.39	42.14	43.742	AGM

Minimum		12.0050	1.5000	0.1610	0.0081	0.2470	73.2012	0.1069	9975.7900	40.6113	41.896	
Maximum		12.0080	1.5070	0.1640	0.0082	0.2486	74.5652	0.1090	10408.3900	42.8041	43.742	
Average		12.0061	1.5051	0.1628	0.0081	0.2481	73.7736	0.1081	10237.9281	41.7966	43.051	
Standard Deviation		0.0010	0.0022	0.0012	0.0001	0.0005	0.5259	0.0008	144.2072	0.6817	0.628	
Coefficient of Variation (%)		0.01	0.14	0.72	0.72	0.22	0.71	0.70	1.41	1.63	1.46	
No. Specimens		8	8	8	8	8	8	8	8	8	8	

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



<b>Input:</b>	Test Plan Prefix		Test Plan #	Material	Test	Cure Cycle	Condition				
	AITR		1392	PWC1	OHT3	MH	CTD				

**Test Group: AITR1392-PWC1-OHT3-MH-CTD**

<b>Material:</b>	<u>MTM45-1/CF0525-36%RW</u>	Normalization:	<u>NA</u>	Cured Ply Thickness:	<u>0.0079</u>	<b>ACG, Inc.</b> <b>Material &amp; Process</b> <b>Laboratory Report</b>
Test Type:	<u>Open-Hole Tension Layup 3</u>	Condition:	<u>CTD</u>	#Plies:	<u>15</u>	
Test Method:	<u>MP1117 (ASTMD5766)</u>					

Specimen ID	Batch	Length, in	Width, in	Thickness, in	Cured Ply Thickness:	Diameter	Width/Diameter	Diameter/Thickness	Ultimate Load, lb	Ultimate Strength, ksi	norm	Failure Mode
AITR1392-PWC1-OHT3-A-MH1-CTD-1	1	12.0100	1.5000	0.1223	0.0082	0.2477	98.2011	0.0815	11456.91	62.45	64.455	LGM
AITR1392-PWC1-OHT3-A-MH1-CTD-2	1	12.0100	1.5050	0.1226	0.0082	0.2481	97.9608	0.0815	11263.24	61.04	63.155	LGM
AITR1392-PWC1-OHT3-A-MH1-CTD-3	1	12.0100	1.5050	0.1218	0.0081	0.2480	98.6043	0.0809	11649.84	63.55	65.323	LGM
AITR1392-PWC1-OHT3-A-MH1-CTD-4	1	12.0060	1.5030	0.1204	0.0080	0.2479	99.7176	0.0801	NT			
AITR1392-PWC1-OHT3-A-MH2-CTD-1	1	12.0070	1.5080	0.1232	0.0082	0.2518	97.4594	0.0817	12623.51	67.95	70.642	LGM
AITR1392-PWC1-OHT3-A-MH2-CTD-2	1	12.0060	1.5090	0.1228	0.0082	0.2515	97.7687	0.0814	11447.48	61.78	64.018	LGM
AITR1392-PWC1-OHT3-A-MH2-CTD-3	1	12.0050	1.5050	0.1224	0.0082	0.2527	98.0801	0.0813	12111.29	65.75	67.910	LGM
AITR1392-PWC1-OHT3-A-MH2-CTD-4	1	12.0060	1.5080	0.1231	0.0082	0.2528	97.5305	0.0816	NT			
AITR1392-PWC1-OHT3-E-MH1-CTD-1	5	12.0070	1.5090	0.1210	0.0081	0.2485	99.2314	0.0802	11547.05	63.24	64.575	LGM
AITR1392-PWC1-OHT3-E-MH1-CTD-2	5	12.0090	1.5090	0.1230	0.0082	0.2479	97.6341	0.0815	11914.70	64.19	66.631	LGM
AITR1392-PWC1-OHT3-E-MH1-CTD-3	5	12.0080	1.5090	0.1230	0.0082	0.2480	97.6260	0.0815	12191.92	65.69	68.181	LGM
AITR1392-PWC1-OHT3-E-MH1-CTD-4	5	12.0080	1.5080	0.1230	0.0082	0.2482	97.6260	0.0816	NT			
AITR1392-PWC1-OHT3-E-MH2-CTD-1	5	12.0080	1.5080	0.1230	0.0082	0.2480	97.6260	0.0816	12492.65	67.35	69.909	LGM
AITR1392-PWC1-OHT3-E-MH2-CTD-2	5	12.0070	1.5080	0.1210	0.0081	0.2480	99.2314	0.0802	11504.68	63.05	64.381	LGM
AITR1392-PWC1-OHT3-E-MH2-CTD-3	5	12.0080	1.5080	0.1210	0.0081	0.2482	99.2397	0.0802	11825.84	64.81	66.178	LGM
AITR1392-PWC1-OHT3-E-MH2-CTD-4	5	12.0060	1.5070	0.1200	0.0080	0.2482	100.0500	0.0796	NT			
AITR1392-PWC1-OHT3-D-MH1-CTD-1	4	12.0090	1.5070	0.1200	0.0080	0.2504	100.0750	0.0796	10514.61	58.14	58.879	LGM
AITR1392-PWC1-OHT3-D-MH1-CTD-2	4	12.0080	1.5070	0.1210	0.0081	0.2494	99.2397	0.0803	10302.16	56.50	57.689	LGM
AITR1392-PWC1-OHT3-D-MH1-CTD-3	4	12.0080	1.5070	0.1210	0.0081	0.2497	99.2397	0.0803	9944.23	54.53	55.685	LGM
AITR1392-PWC1-OHT3-D-MH1-CTD-4	4	12.0080	1.5060	0.1200	0.0080	0.2492	100.0667	0.0797	NT			
AITR1392-PWC1-OHT3-D-MH2-CTD-1	4	12.0090	1.5050	0.1230	0.0082	0.2521	97.6341	0.0817	10976.23	59.29	61.546	LGM
AITR1392-PWC1-OHT3-D-MH2-CTD-2	4	12.0090	1.5060	0.1230	0.0082	0.2517	97.6341	0.0817	11471.51	61.93	64.280	LGM
AITR1392-PWC1-OHT3-D-MH2-CTD-3	4	12.0090	1.5050	0.1220	0.0081	0.2513	98.4344	0.0811	9974.71	54.33	55.930	LGM
AITR1392-PWC1-OHT3-D-MH2-CTD-4	4	12.0090	1.5060	0.1210	0.0081	0.2509	99.2479	0.0803	NT			
Minimum		12.0050	1.5000	0.1200	0.0080	0.2477	97.4594	0.0796	9944.2340	54.3255	55.685	
Maximum		12.0100	1.5090	0.1232	0.0082	0.2528	100.0750	0.0817	12623.5090	67.9466	70.642	
Average		12.0079	1.5066	0.1219	0.0081	0.2496	98.5483	0.0809	11400.6972	61.9764	63.854	
Standard Deviation		0.0014	0.0021	0.0011	0.0001	0.0018	0.9256	0.0008	793.8722	4.0414	4.423	
Coefficient of Variation (%)		0.01	0.14	0.94	0.94	0.72	0.94	0.93	6.96	6.52	6.93	
No. Specimens		24	24	24	24	24	24	24	18	18	18	

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





<b>Input:</b>	Test Plan Prefix		Test Plan #	Material	Test	Cure Cycle	Condition							
	AITR		1392	PWC1	OHC1	MH	RTD							

**Test Group: AITR1392-PWC1-OHC1-MH-RTD**

<b>Material:</b> <u>MTM45-1/CF0525-36%RW</u>	Normalization: <u>NA</u>	Cured Ply Thickness: <u>0.0079</u>	<b>ACG, Inc.</b> <b>Material &amp; Process</b> <b>Laboratory Report</b>
Test Type: <u>Open-Hole Compression Layup 1</u>	Condition: <u>RTD</u>	#Plies: <u>16</u>	
Test Method: <u>MP1119 (ASTMD6484)</u>			

Specimen ID	Batch	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	norm	Failure Mode
AITR1392-PWC1-OHC1-A-MH1-RTD-1	1	12.0040	1.5060	0.1335	0.0083	0.2477	0.6284	5.871	6.0799	1.8554	7906.00	39.32	41.532	LGM
AITR1392-PWC1-OHC1-A-MH1-RTD-2	1	12.0035	1.5070	0.1230	0.0077	0.2473	0.6293	5.873	6.0938	2.0106	7267.00	39.20	38.150	LGM
AITR1392-PWC1-OHC1-A-MH1-RTD-3	1	12.0030	1.5070	0.1310	0.0082	0.2478	0.6287	5.872	6.0815	1.8916	7818.00	39.60	41.043	LGM
AITR1392-PWC1-OHC1-A-MH1-RTD-4	1	12.0030	1.5070	0.1315	0.0082	0.2478	0.6276	5.874	6.0815	1.8844	NT			
AITR1392-PWC1-OHC1-A-MH2-RTD-1	1	12.0040	1.5050	0.1290	0.0081	0.2498	0.6224	5.876	6.0248	1.9364	7567.00	38.98	39.778	LGM
AITR1392-PWC1-OHC1-A-MH2-RTD-2	1	12.0050	1.5050	0.1300	0.0081	0.2496	0.6252	5.877	6.0296	1.9200	7780.00	39.76	40.897	LGM
AITR1392-PWC1-OHC1-A-MH2-RTD-3	1	12.0040	1.5050	0.1280	0.0080	0.2495	0.6272	5.873	6.0321	1.9492	8063.00	41.86	42.385	LGM
AITR1392-PWC1-OHC1-A-MH2-RTD-4	1	12.0040	1.5060	0.1310	0.0082	0.2492	0.6257	5.875	6.0433	1.9023	NT			
AITR1392-PWC1-OHC1-E-MH1-RTD-1	5	12.0090	1.5100	0.1300	0.0081	0.2487	0.6280	5.875	6.0716	1.9131	8027.00	40.89	42.056	LGM
AITR1392-PWC1-OHC1-E-MH1-RTD-2	5	12.0090	1.5090	0.1290	0.0081	0.2481	0.6300	5.873	6.0822	1.9233	8340.00	42.84	43.725	LGM
AITR1392-PWC1-OHC1-E-MH1-RTD-3	5	12.0080	1.5090	0.1280	0.0080	0.2478	0.6310	5.874	6.0896	1.9359	8331.00	43.13	43.678	LGM
AITR1392-PWC1-OHC1-E-MH1-RTD-4	5	12.0080	1.5100	0.1280	0.0080	0.2475	0.6320	5.876	6.1010	1.9336	NT			
AITR1392-PWC1-OHC1-E-MH2-RTD-1	5	12.0080	1.5080	0.1310	0.0082	0.2483	0.6300	5.879	6.0733	1.8954	7910.00	40.04	41.498	LGM
AITR1392-PWC1-OHC1-E-MH2-RTD-2	5	12.0090	1.5080	0.1290	0.0081	0.2483	0.6290	5.874	6.0733	1.9248	8335.00	42.85	43.728	LGM
AITR1392-PWC1-OHC1-E-MH2-RTD-3	5	12.0090	1.5080	0.1300	0.0081	0.2482	0.6300	5.874	6.0757	1.9092	8200.00	41.83	43.020	LGM
AITR1392-PWC1-OHC1-E-MH2-RTD-4	5	12.0080	1.5060	0.1330	0.0083	0.2483	0.6280	5.873	6.0652	1.8669	NT			
AITR1392-PWC1-OHC1-D-MH1-RTD-1	4	12.0070	1.5080	0.1300	0.0081	0.2523	0.6250	5.875	5.9770	1.9408	7748.00	39.52	40.648	LGM
AITR1392-PWC1-OHC1-D-MH1-RTD-2	4	12.0080	1.5080	0.1310	0.0082	0.2512	0.6260	5.872	6.0032	1.9176	7750.00	39.23	40.659	LGM
AITR1392-PWC1-OHC1-D-MH1-RTD-3	4	12.0080	1.5080	0.1330	0.0083	0.2523	0.6270	5.874	5.9770	1.8970	8074.00	40.26	42.358	LGM
AITR1392-PWC1-OHC1-D-MH1-RTD-4	4	12.0080	1.5080	0.1310	0.0082	0.2488	0.6270	5.87	6.0611	1.8992	NT			
AITR1392-PWC1-OHC1-D-MH2-RTD-1	4	12.0100	1.5080	0.1310	0.0082	0.2489	0.6256	5.875	6.0587	1.9000	7784.00	39.40	40.837	LGM
AITR1392-PWC1-OHC1-D-MH2-RTD-2	4	12.0000	1.5080	0.1320	0.0083	0.2481	0.6254	5.87	6.0782	1.8795	7448.00	37.42	39.074	LGM
AITR1392-PWC1-OHC1-D-MH2-RTD-3	4	12.0080	1.5080	0.1330	0.0083	0.2483	0.6256	5.876	6.0733	1.8669	7858.00	39.18	41.225	LGM
AITR1392-PWC1-OHC1-D-MH2-RTD-4	4	11.9980	1.5080	0.1320	0.0083	0.2484	0.6255	5.869	6.0709	1.8818	NT			
Minimum		11.9980	1.5050	0.1230	0.0077	0.2473	0.6224	5.8690	5.9770	1.8554	7267.0000	37.4166	38.150	
Maximum		12.0100	1.5100	0.1335	0.0083	0.2523	0.6320	5.8790	6.1010	2.0106	8340.0000	43.1318	43.728	
Average		12.0061	1.5075	0.1303	0.0081	0.2488	0.6275	5.8738	6.0582	1.9098	7900.3333	40.2954	41.461	
Standard Deviation		0.0031	0.0014	0.0023	0.0001	0.0014	0.0023	0.0023	0.0343	0.0331	299.9533	1.5895	1.560	
Coefficient of Variation (%)		0.03	0.09	1.73	1.73	0.55	0.36	0.04	0.57	1.73	3.80	3.94	3.76	
No. Specimens		24	24	24	24	24	24	24	24	24	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	PWC1	OHC1	MH	ETW2							

**Test Group: AITR1392-PWC1-OHC1-MH-ETW2**

Material: **MTM45-1/CF0525-36%RW**      Normalization: NA      Cured Ply Thickness: 0.0079  
 Test Type: Open-Hole Compression Layup 1      Condition: ETW2      #Plies: 16  
 Test Method: MP1119 (ASTMD6484)

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

Specimen ID	Batch	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	norm	Failure Mode
AITR1392-PWC1-OHC1-A-MH1-ETW2-1	1	12.0080	1.5063	0.1337	0.0084	0.2476	0.6290	5.877	6.0837	1.8519	5251.72	26.08	27.582	LGM
AITR1392-PWC1-OHC1-A-MH1-ETW2-2	1	12.0060	1.5063	0.1332	0.0083	0.2478	0.6303	5.873	6.0788	1.8608	5824.66	29.04	30.592	LGM
AITR1392-PWC1-OHC1-A-MH1-ETW2-3	1	12.0090	1.5057	0.1336	0.0084	0.2477	0.6278	5.873	6.0786	1.8540	5417.56	26.93	28.466	LGM
AITR1392-PWC1-OHC1-A-MH1-ETW2-4	1	12.0080	1.5047	0.1349	0.0084	0.2476	0.6286	5.872	6.0770	1.8359	NT			
AITR1392-PWC1-OHC1-A-MH2-ETW2-1	1	12.0090	1.5080	0.1306	0.0082	0.2493	0.6260	5.871	6.0489	1.9089	5790.63	29.40	30.379	LGM
AITR1392-PWC1-OHC1-A-MH2-ETW2-2	1	12.0090	1.5070	0.1331	0.0083	0.2494	0.6260	5.875	6.0425	1.8738	5761.80	28.73	30.248	LGM
AITR1392-PWC1-OHC1-A-MH2-ETW2-3	1	12.0080	1.5070	0.1321	0.0083	0.2500	0.6266	5.874	6.0280	1.8925	5647.52	28.37	29.648	LGM
AITR1392-PWC1-OHC1-A-MH2-ETW2-4	1	12.0090	1.5070	0.1310	0.0082	0.2492	0.6261	5.875	6.0474	1.9023	NT			
AITR1392-PWC1-OHC1-E-MH1-ETW2-1	5	12.0130	1.5120	0.1305	0.0082	0.2482	0.6330	5.876	6.0919	1.9019	5594.66	28.35	29.274	LGM
AITR1392-PWC1-OHC1-E-MH1-ETW2-2	5	12.0130	1.5120	0.1295	0.0081	0.2484	0.6320	5.873	6.0870	1.9181	5799.38	29.62	30.345	LGM
AITR1392-PWC1-OHC1-E-MH1-ETW2-3	5	12.0130	1.5120	0.1291	0.0081	0.2480	0.6330	5.874	6.0968	1.9210	5653.79	28.96	29.583	LGM
AITR1392-PWC1-OHC1-E-MH1-ETW2-4	5	12.0130	1.5110	0.1288	0.0081	0.2485	0.6250	5.867	6.0805	1.9293	NT			
AITR1392-PWC1-OHC1-E-MH2-ETW2-1	5	12.0120	1.5090	0.1303	0.0081	0.2483	0.6290	5.879	6.0773	1.9056	5753.17	29.26	30.163	LGM
AITR1392-PWC1-OHC1-E-MH2-ETW2-2	5	12.0120	1.5080	0.1291	0.0081	0.2482	0.6300	5.875	6.0757	1.9225	5613.17	28.83	29.448	LGM
AITR1392-PWC1-OHC1-E-MH2-ETW2-3	5	12.0120	1.5080	0.1283	0.0080	0.2481	0.6300	5.875	6.0782	1.9337	5514.09	28.50	28.928	LGM
AITR1392-PWC1-OHC1-E-MH2-ETW2-4	5	12.0120	1.5090	0.1283	0.0080	0.2486	0.6290	5.875	6.0700	1.9376	NT			
AITR1392-PWC1-OHC1-D-MH1-ETW2-1	4	12.0120	1.5110	0.1328	0.0083	0.2520	0.6250	5.872	5.9960	1.8976	5271.67	26.27	27.602	LGM
AITR1392-PWC1-OHC1-D-MH1-ETW2-2	4	12.0120	1.5100	0.1334	0.0083	0.2525	0.6240	5.876	5.9802	1.8928	5599.01	27.80	29.335	LGM
AITR1392-PWC1-OHC1-D-MH1-ETW2-3	4	12.0130	1.5100	0.1309	0.0082	0.2512	0.6240	5.872	6.0111	1.9190	5954.74	30.13	31.199	LGM
AITR1392-PWC1-OHC1-D-MH1-ETW2-4	4	12.0130	1.5100	0.1322	0.0083	0.2522	0.6240	5.875	5.9873	1.9077	NT			
AITR1392-PWC1-OHC1-D-MH2-ETW2-1	4	12.0040	1.5100	0.1319	0.0082	0.2484	0.6255	5.869	6.0789	1.8832	5393.74	27.08	28.260	LGM
AITR1392-PWC1-OHC1-D-MH2-ETW2-2	4	12.0130	1.5100	0.1318	0.0082	0.2487	0.6256	5.867	6.0716	1.8869	5472.14	27.50	28.670	LGM
AITR1392-PWC1-OHC1-D-MH2-ETW2-3	4	12.0060	1.5100	0.1328	0.0083	0.2477	0.6244	5.87	6.0961	1.8652	5235.96	26.11	27.433	LGM
AITR1392-PWC1-OHC1-D-MH2-ETW2-4	4	12.0150	1.5110	0.1318	0.0082	0.2482	0.6257	5.861	6.0878	1.8832	NT			
Minimum		12.0040	1.5047	0.1283	0.0080	0.2476	0.6240	5.8610	5.9802	1.8359	5235.9600	26.0765	27.433	
Maximum		12.0150	1.5120	0.1349	0.0084	0.2525	0.6330	5.8790	6.0968	1.9376	5954.7400	30.1263	31.199	
Average		12.0106	1.5090	0.1314	0.0082	0.2490	0.6275	5.8728	6.0605	1.8952	5586.0783	28.1640	29.286	
Standard Deviation		0.0029	0.0021	0.0019	0.0001	0.0015	0.0028	0.0039	0.0351	0.0276	212.1448	1.2481	1.112	
Coefficient of Variation (%)		0.02	0.14	1.43	1.43	0.60	0.45	0.07	0.58	1.46	3.80	4.43	3.80	
No. Specimens		24	24	24	24	24	24	24	24	24	18	18	18	

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



<b>Input:</b>	Test Plan Prefix		Test Plan #	Material	Test	Cure Cycle	Condition							
	AITR		1392	PWC1	OHC2	MH	ETW2							

**Test Group: AITR1392-PWC1-OHC2-MH-ETW2**

<b>Material:</b> <u>MTM45-1/CF0525-36%RW</u>	Normalization: <u>NA</u>	Cured Ply Thickness: <u>0.0079</u>	<b>ACG, Inc.</b> <b>Material &amp; Process</b> <b>Laboratory Report</b>
Test Type: <u>Open-Hole Compression Layup 2</u>	Condition: <u>ETW2</u>	#Plies: <u>20</u>	
Test Method: <u>MP1119 (ASTMD6484)</u>			

Specimen ID	Batch	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	norm	Failure Mode
AITR1392-PWC1-OHC2-A-MH1-ETW2-1	1	12.0090	1.5063	0.1623	0.0081	0.2480	0.6280	5.877	6.0739	1.5283	6315.41	25.84	26.535	LGM
AITR1392-PWC1-OHC2-A-MH1-ETW2-2	1	12.0100	1.5057	0.1629	0.0081	0.2483	0.6270	5.877	6.0639	1.5239	6148.51	25.06	25.845	LGM
AITR1392-PWC1-OHC2-A-MH1-ETW2-3	1	12.0120	1.5067	0.1628	0.0081	0.2483	0.6288	5.878	6.0679	1.5249	6253.85	25.49	26.271	LGM
AITR1392-PWC1-OHC2-A-MH1-ETW2-4	1	11.9940	1.5063	0.1637	0.0082	0.2480	0.6293	5.881	6.0739	1.5153	NT			
AITR1392-PWC1-OHC2-A-MH2-ETW2-1	1	12.0090	1.5073	0.1620	0.0081	0.2478	0.6287	5.873	6.0829	1.5293	6164.06	25.24	25.882	LGM
AITR1392-PWC1-OHC2-A-MH2-ETW2-2	1	12.0090	1.5063	0.1620	0.0081	0.2478	0.6281	5.876	6.0788	1.5293	6129.63	25.11	25.755	LGM
AITR1392-PWC1-OHC2-A-MH2-ETW2-3	1	12.0080	1.5053	0.1631	0.0082	0.2479	0.6285	5.873	6.0723	1.5199	6212.44	25.30	26.120	LGM
AITR1392-PWC1-OHC2-A-MH2-ETW2-4	1	12.0100	1.5053	0.1631	0.0082	0.2479	0.6277	5.874	6.0723	1.5196	NT			
AITR1392-PWC1-OHC2-E-MH1-ETW2-1	5	12.0120	1.5090	0.1622	0.0081	0.2480	0.6280	5.874	6.0847	1.5290	6060.64	24.76	25.420	LGM
AITR1392-PWC1-OHC2-E-MH1-ETW2-2	5	12.0120	1.5080	0.1646	0.0082	0.2486	0.6260	5.873	6.0660	1.5103	6388.72	25.74	26.814	LGM
AITR1392-PWC1-OHC2-E-MH1-ETW2-3	5	12.0120	1.5080	0.1635	0.0082	0.2481	0.6236	5.871	6.0782	1.5174	6482.07	26.29	27.205	LGM
AITR1392-PWC1-OHC2-E-MH1-ETW2-4	5	12.0120	1.5080	0.1639	0.0082	0.2480	0.6280	5.873	6.0806	1.5131	NT			
AITR1392-PWC1-OHC2-E-MH2-ETW2-1	5	12.0110	1.5080	0.1635	0.0082	0.2487	0.6270	5.875	6.0635	1.5211	6503.92	26.38	27.297	LGM
AITR1392-PWC1-OHC2-E-MH2-ETW2-2	5	12.0120	1.5090	0.1628	0.0081	0.2479	0.6280	5.876	6.0871	1.5227	6444.30	26.23	27.029	LGM
AITR1392-PWC1-OHC2-E-MH2-ETW2-3	5	12.0110	1.5080	0.1629	0.0081	0.2483	0.6270	5.875	6.0733	1.5242	6432.34	26.18	26.997	LGM
AITR1392-PWC1-OHC2-E-MH2-ETW2-4	5	12.0110	1.5080	0.1649	0.0082	0.2483	0.6270	5.875	6.0733	1.5058	NT			
AITR1392-PWC1-OHC2-D-MH1-ETW2-1	4	12.0110	1.5080	0.1613	0.0081	0.2499	0.6290	5.876	6.0344	1.5493	6063.69	24.93	25.449	LGM
AITR1392-PWC1-OHC2-D-MH1-ETW2-2	4	12.0100	1.5080	0.1623	0.0081	0.2500	0.6250	5.874	6.0320	1.5404	6312.38	25.79	26.493	LGM
AITR1392-PWC1-OHC2-D-MH1-ETW2-3	4	12.0100	1.5080	0.1621	0.0081	0.2499	0.6270	5.874	6.0344	1.5416	6130.40	25.08	25.729	LGM
AITR1392-PWC1-OHC2-D-MH1-ETW2-4	4	12.0100	1.5090	0.1619	0.0081	0.2498	0.6250	5.877	6.0408	1.5429	NT			
AITR1392-PWC1-OHC2-D-MH2-ETW2-1	4	12.0100	1.5080	0.1637	0.0082	0.2491	0.6290	5.884	6.0538	1.5217	6281.42	25.45	26.363	LGM
AITR1392-PWC1-OHC2-D-MH2-ETW2-2	4	12.0100	1.5080	0.1623	0.0081	0.2497	0.6290	5.877	6.0392	1.5385	6304.17	25.76	26.459	LGM
AITR1392-PWC1-OHC2-D-MH2-ETW2-3	4	12.0100	1.5080	0.1624	0.0081	0.2490	0.6290	5.877	6.0562	1.5333	6072.21	24.79	25.485	LGM
AITR1392-PWC1-OHC2-D-MH2-ETW2-4	4	12.0090	1.5090	0.1624	0.0081	0.2492	0.6290	5.871	6.0554	1.5345	NT			
Minimum		11.9940	1.5053	0.1613	0.0081	0.2478	0.6236	5.8710	6.0320	1.5058	6060.6400	24.7616	25.4198	
Maximum		12.0120	1.5090	0.1649	0.0082	0.2500	0.6293	5.8840	6.0871	1.5493	6503.9200	26.3789	27.2971	
Average		12.0098	1.5076	0.1629	0.0081	0.2486	0.6276	5.8755	6.0641	1.5265	6261.1200	25.5238	26.2861	
Standard Deviation		0.0036	0.0011	0.0009	0.0000	0.0008	0.0015	0.0029	0.0171	0.0109	147.2340	0.5264	0.6142	
Coefficient of Variation (%)		0.03	0.08	0.54	0.54	0.31	0.24	0.05	0.28	0.71	2.35	2.06	2.34	
No. Specimens		24	24	24	24	24	24	24	24	24	18	18	18	

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



<b>Input:</b>	Test Plan Prefix		Test Plan #	Material	Test	Cure Cycle	Condition						
	AITR		1392	PWC1	OHC3	MH	ETW2						

**Test Group: AITR1392-PWC1-OHC3-MH-ETW2**

<b>Material:</b> <u>MTM45-1/CF0525-36%RW</u>	Normalization: <u>NA</u>	Cured Ply Thickness: <u>0.0079</u>	<b>ACG, Inc.</b> <b>Material &amp; Process</b> <b>Laboratory Report</b>
Test Type: <u>Open-Hole Compression Layup 3</u>	Condition: <u>ETW2</u>	#Plies: <u>15</u>	
Test Method: <u>MP1119 (ASTMD6484)</u>			

Specimen ID	Batch	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	norm	Failure Mode
AITR1392-PWC1-OHC3-A-MH1-ETW2-1	1	12.0100	1.5080	0.1223	0.0082	0.2500	0.6260	5.88	6.0320	2.0442	5670.33	30.75	31.731	LGM
AITR1392-PWC1-OHC3-A-MH1-ETW2-2	1	12.0090	1.5080	0.1235	0.0082	0.2502	0.6264	5.878	6.0272	2.0259	5985.51	32.14	33.495	LGM
AITR1392-PWC1-OHC3-A-MH1-ETW2-3	1	12.0100	1.5070	0.1225	0.0082	0.2501	0.6309	5.879	6.0256	2.0416	6031.20	32.67	33.773	LGM
AITR1392-PWC1-OHC3-A-MH1-ETW2-4	1	12.0100	1.5080	0.1222	0.0081	0.2502	0.6264	5.88	6.0272	2.0475	NT			
AITR1392-PWC1-OHC3-A-MH2-ETW2-1	1	12.0080	1.5060	0.1222	0.0081	0.2520	0.6278	5.875	5.9762	2.0616	6206.59	33.72	34.778	LGM
AITR1392-PWC1-OHC3-A-MH2-ETW2-2	1	12.0090	1.5060	0.1211	0.0081	0.2506	0.6280	5.877	6.0096	2.0688	5359.98	29.38	30.034	LGM
AITR1392-PWC1-OHC3-A-MH2-ETW2-3	1	12.0080	1.5063	0.1215	0.0081	0.2510	0.6284	5.874	6.0013	2.0664	5979.37	32.68	33.498	LGM
AITR1392-PWC1-OHC3-A-MH2-ETW2-4	1	12.0080	1.5053	0.1201	0.0080	0.2506	0.6280	5.876	6.0069	2.0872	NT			
AITR1392-PWC1-OHC3-E-MH1-ETW2-1	5	12.0110	1.5070	0.1228	0.0082	0.2481	0.6280	5.879	6.0742	2.0204	5513.33	29.79	30.873	LGM
AITR1392-PWC1-OHC3-E-MH1-ETW2-2	5	12.0120	1.5070	0.1229	0.0082	0.2480	0.6290	5.881	6.0766	2.0179	5202.26	28.09	29.131	LGM
AITR1392-PWC1-OHC3-E-MH1-ETW2-3	5	12.0120	1.5070	0.1221	0.0081	0.2484	0.6270	5.88	6.0668	2.0344	6050.32	32.88	33.880	LGM
AITR1392-PWC1-OHC3-E-MH1-ETW2-4	5	12.0110	1.5060	0.1224	0.0082	0.2495	0.6280	5.879	6.0361	2.0384	NT			
AITR1392-PWC1-OHC3-E-MH2-ETW2-1	5	12.0110	1.5090	0.1201	0.0080	0.2483	0.6280	5.874	6.0773	2.0674	5785.32	31.92	32.353	LGM
AITR1392-PWC1-OHC3-E-MH2-ETW2-2	5	12.0120	1.5090	0.1224	0.0082	0.2483	0.6290	5.874	6.0773	2.0286	6009.81	32.54	33.609	LGM
AITR1392-PWC1-OHC3-E-MH2-ETW2-3	5	12.0120	1.5090	0.1221	0.0081	0.2481	0.6290	5.874	6.0822	2.0319	5671.64	30.78	31.718	LGM
AITR1392-PWC1-OHC3-E-MH2-ETW2-4	5	12.0120	1.5090	0.1210	0.0081	0.2482	0.6290	5.874	6.0798	2.0512	NT			
AITR1392-PWC1-OHC3-D-MH1-ETW2-1	4	12.0110	1.5080	0.1208	0.0081	0.2490	0.6290	5.876	6.0562	2.0613	5716.43	31.38	31.989	LGM
AITR1392-PWC1-OHC3-D-MH1-ETW2-2	4	12.0100	1.5080	0.1224	0.0082	0.2504	0.6280	5.884	6.0224	2.0458	5866.44	31.78	32.829	LGM
AITR1392-PWC1-OHC3-D-MH1-ETW2-3	4	12.0100	1.5080	0.1224	0.0082	0.2505	0.6330	5.883	6.0200	2.0466	5300.29	28.72	29.661	LGM
AITR1392-PWC1-OHC3-D-MH1-ETW2-4	4	12.0110	1.5090	0.1214	0.0081	0.2509	0.6260	5.879	6.0143	2.0667	NT			
AITR1392-PWC1-OHC3-D-MH2-ETW2-1	4	12.0110	1.5090	0.1225	0.0082	0.2481	0.6260	5.874	6.0822	2.0253	4855.97	26.27	27.156	LGM
AITR1392-PWC1-OHC3-D-MH2-ETW2-2	4	12.0110	1.5080	0.1223	0.0082	0.2479	0.6300	5.875	6.0831	2.0270	5026.01	27.25	28.126	LGM
AITR1392-PWC1-OHC3-D-MH2-ETW2-3	4	12.0110	1.5090	0.1231	0.0082	0.2479	0.6231	5.873	6.0871	2.0138	5922.15	31.88	33.119	LGM
AITR1392-PWC1-OHC3-D-MH2-ETW2-4	4	12.0120	1.5090	0.1221	0.0081	0.2486	0.6290	5.873	6.0700	2.0360	NT			
Minimum		12.0080	1.5053	0.1201	0.0080	0.2479	0.6231	5.8730	5.9762	2.0138	4855.9700	26.2694	27.156	
Maximum		12.0120	1.5090	0.1235	0.0082	0.2520	0.6330	5.8840	6.0871	2.0872	6206.5900	33.7162	34.778	
Average		12.0105	1.5077	0.1220	0.0081	0.2494	0.6280	5.8771	6.0463	2.0440	5675.1639	30.8121	31.764	
Standard Deviation		0.0013	0.0012	0.0009	0.0001	0.0013	0.0019	0.0032	0.0330	0.0191	386.8730	2.1179	2.169	
Coefficient of Variation (%)		0.01	0.08	0.72	0.72	0.50	0.31	0.06	0.55	0.94	6.82	6.87	6.83	
No. Specimens		24	24	24	24	24	24	24	24	24	18	18	18	

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

<b>Input:</b>	Test Plan Prefix		Test Plan #	Material	Test	Cure Cycle	Condition			
	AITR		1392	PWC1	FHT1	MH	CTD			

**Test Group:** AITR1392-PWC1-FHT1-MH-CTD

<b>Material:</b> MTM45-1/CF0525-36%RW	Normalization: NA	Cured Ply Thickness: 0.0079	<b>ACG, Inc.</b> <b>Material &amp; Process</b> <b>Laboratory Report</b>
Test Type: Filled-Hole Tension Layup 1	Condition: CTD	#Plies: 16	
Test Method: MP1118 (ASTMD6742)			

Specimen ID	Batch	Length, in	Width, in	Thickness, in	Cured Ply Thickness:	Diameter	Width/Diameter	Diameter/Thickness	Ultimate Load, lb	Ultimate Strength, ksi	norm	Failure Mode
AITR1392-PWC1-FHT1-A-MH1-CTD-1	1	12.0050	1.5080	0.1322	0.0083	0.2506	90.8094	0.0877	10612.13	53.23	55.674	LGM
AITR1392-PWC1-FHT1-A-MH1-CTD-2	1	12.0080	1.5070	0.1320	0.0083	0.2521	90.9697	0.0876	10728.86	53.93	56.324	LGM
AITR1392-PWC1-FHT1-A-MH1-CTD-3	1	12.0060	1.5080	0.1327	0.0083	0.2512	90.4748	0.0880	11296.63	56.45	59.265	LGM
AITR1392-PWC1-FHT1-A-MH1-CTD-4	1	12.0080	1.5080	0.1322	0.0083	0.2500	90.8321	0.0877	NT			
AITR1392-PWC1-FHT1-A-MH2-CTD-1	1	12.0070	1.5080	0.1310	0.0082	0.2511	91.6565	0.0869	10255.02	51.91	53.801	LGM
AITR1392-PWC1-FHT1-A-MH2-CTD-2	1	12.0060	1.5080	0.1310	0.0082	0.2514	91.6489	0.0869	10588.96	53.60	55.553	LGM
AITR1392-PWC1-FHT1-A-MH2-CTD-3	1	12.0070	1.5090	0.1315	0.0082	0.2514	91.3080	0.0871	11174.23	56.31	58.584	LGM
AITR1392-PWC1-FHT1-A-MH2-CTD-4	1	12.0060	1.5080	0.1309	0.0082	0.2509	91.7189	0.0868	NT			
AITR1392-PWC1-FHT1-E-MH1-CTD-1	5	12.0100	1.5060	0.1330	0.0083	0.2506	90.3008	0.0883	9846.88	49.16	51.728	LGM
AITR1392-PWC1-FHT1-E-MH1-CTD-2	5	12.0090	1.5070	0.1330	0.0083	0.2505	90.2932	0.0883	9879.05	49.29	51.863	LGM
AITR1392-PWC1-FHT1-E-MH1-CTD-3	5	12.0100	1.5050	0.1320	0.0083	0.2524	90.9848	0.0877	9941.75	50.04	52.261	LGM
AITR1392-PWC1-FHT1-E-MH1-CTD-4	5	12.0100	1.5030	0.1330	0.0083	0.2501	90.3008	0.0885	NT			
AITR1392-PWC1-FHT1-E-MH2-CTD-1	5	12.0080	1.5080	0.1310	0.0082	0.2500	91.6641	0.0869	10273.83	52.01	53.899	LGM
AITR1392-PWC1-FHT1-E-MH2-CTD-2	5	12.0080	1.5090	0.1310	0.0082	0.2502	91.6641	0.0868	10025.76	50.72	52.563	LGM
AITR1392-PWC1-FHT1-E-MH2-CTD-3	5	12.0080	1.5080	0.1330	0.0083	0.2500	90.2857	0.0882	10582.66	52.76	55.520	LGM
AITR1392-PWC1-FHT1-E-MH2-CTD-4	5	12.0080	1.5090	0.1330	0.0083	0.2500	90.2857	0.0881	NT			
AITR1392-PWC1-FHT1-D-MH1-CTD-1	4	12.0100	1.5100	0.1330	0.0083	0.2505	90.3008	0.0881	9961.64	49.60	52.192	LGM
AITR1392-PWC1-FHT1-D-MH1-CTD-2	4	12.0100	1.5090	0.1320	0.0083	0.2506	90.9848	0.0875	9845.98	49.43	51.621	LGM
AITR1392-PWC1-FHT1-D-MH1-CTD-3	4	12.0100	1.5100	0.1330	0.0083	0.2507	90.3008	0.0881	10162.25	50.60	53.243	LGM
AITR1392-PWC1-FHT1-D-MH1-CTD-4	4	12.0100	1.5100	0.1330	0.0083	0.2508	90.3008	0.0881	NT			
AITR1392-PWC1-FHT1-D-MH2-CTD-1	4	12.0080	1.5090	0.1330	0.0083	0.2502	90.2857	0.0881	9477.07	47.22	49.686	LGM
AITR1392-PWC1-FHT1-D-MH2-CTD-2	4	11.9980	1.5090	0.1330	0.0083	0.2507	90.2105	0.0881	9561.65	47.64	50.130	LGM
AITR1392-PWC1-FHT1-D-MH2-CTD-3	4	12.0100	1.5080	0.1320	0.0083	0.2505	90.9848	0.0875	9160.87	46.02	48.061	LGM
AITR1392-PWC1-FHT1-D-MH2-CTD-4	4	11.9990	1.5090	0.1320	0.0083	0.2505	90.9015	0.0875	NT			
Minimum		11.9980	1.5030	0.1309	0.0082	0.2500	90.2105	0.0868	9160.8720	46.0216	48.061	
Maximum		12.0100	1.5100	0.1330	0.0083	0.2524	91.7189	0.0885	11296.6300	56.4516	59.265	
Average		12.0075	1.5080	0.1322	0.0083	0.2507	90.8111	0.0877	10187.5114	51.1081	53.443	
Standard Deviation		0.0032	0.0016	0.0008	0.0001	0.0006	0.5493	0.0005	564.7943	2.9232	2.964	
Coefficient of Variation (%)		0.03	0.11	0.61	0.61	0.25	0.60	0.62	5.54	5.72	5.55	
No. Specimens		24	24	24	24	24	24	24	18	18	18	

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















<b>Input:</b>	Test Plan Prefix		Test Plan #	Material	Test	Cure Cycle	Condition						
	AITR		1392	PWC1	FHC1	MH	ETW2						

**Test Group: AITR1392-PWC1-FHC1-MH-ETW2**

<b>Material:</b> <u>MTM45-1/CF0525-36%RW</u>	Normalization: <u>NA</u>	Cured Ply Thickness: <u>0.0079</u>	<b>ACG, Inc.</b> <b>Material &amp; Process</b> <b>Laboratory Report</b>
Test Type: <u>Filled-Hole Compression Layup 1</u>	Condition: <u>ETW2</u>	#Plies: <u>16</u>	
Test Method: <u>MP1119 (ASTMD6742)</u>			

Specimen ID	Batch	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	norm	Failure Mode
AITR1392-PWC1-FHC1-A-MH1-ETW2-1	1	12.0060	1.5090	0.1325	0.0083	0.2503	0.6293	5.878	6.0288	1.8891	FM			LWT
AITR1392-PWC1-FHC1-A-MH1-ETW2-2	1	12.0060	1.5080	0.1328	0.0083	0.2502	0.6286	5.873	6.0272	1.8840	7846.00	39.18	41.162	MGF
AITR1392-PWC1-FHC1-A-MH1-ETW2-3	1	12.0070	1.5070	0.1336	0.0083	0.2503	0.6281	5.874	6.0208	1.8742	FM			LAT
AITR1392-PWC1-FHC1-A-MH1-ETW2-4	1	12.0070	1.5070	0.1337	0.0084	0.2505	0.6285	5.874	6.0160	1.8743	7810.00	38.78	41.001	AGM
AITR1392-PWC1-FHC1-A-MH2-ETW2-1	1	12.0080	1.5060	0.1352	0.0084	0.2517	0.6261	5.875	5.9833	1.8624	8222.00	40.40	43.192	LMM
AITR1392-PWC1-FHC1-A-MH2-ETW2-2	1	12.0090	1.5080	0.1340	0.0084	0.2503	0.6261	5.875	6.0248	1.8679	8328.00	41.21	43.691	LGF
AITR1392-PWC1-FHC1-A-MH2-ETW2-3	1	12.0090	1.5080	0.1334	0.0083	0.2508	0.6261	5.872	6.0128	1.8801	8354.00	41.53	43.827	LGF
AITR1392-PWC1-FHC1-A-MH2-ETW2-4	1	12.0080	1.5080	0.1331	0.0083	0.2516	0.6261	5.874	5.9936	1.8910	7542.00	37.59	39.567	MGF
AITR1392-PWC1-FHC1-E-MH1-ETW2-1	5	12.0120	1.5080	0.1312	0.0082	0.2504	0.6310	5.868	6.0224	1.9085	7795.87	39.40	40.899	LGF
AITR1392-PWC1-FHC1-E-MH1-ETW2-2	5	12.0110	1.5090	0.1312	0.0082	0.2503	0.6290	5.867	6.0288	1.9078	NT			
AITR1392-PWC1-FHC1-E-MH1-ETW2-3	5	12.0120	1.5090	0.1308	0.0082	0.2502	0.6280	5.867	6.0312	1.9128	NT			
AITR1392-PWC1-FHC1-E-MH1-ETW2-4	5	12.0120	1.5090	0.1309	0.0082	0.2506	0.6280	5.865	6.0215	1.9144	NT			
AITR1392-PWC1-FHC1-E-MH2-ETW2-1	5	12.0100	1.5080	0.1340	0.0084	0.2501	0.6280	5.875	6.0296	1.8664	FM			LWB
AITR1392-PWC1-FHC1-E-MH2-ETW2-2	5	12.0100	1.5090	0.1338	0.0084	0.2500	0.6280	5.874	6.0360	1.8685	8499.00	42.09	44.559	MGF
AITR1392-PWC1-FHC1-E-MH2-ETW2-3	5	12.0100	1.5080	0.1338	0.0084	0.2501	0.6270	5.874	6.0296	1.8692	9488.00	47.02	49.777	LGF
AITR1392-PWC1-FHC1-E-MH2-ETW2-4	5	12.0100	1.5090	0.1342	0.0084	0.2500	0.6280	5.873	6.0360	1.8636	8075.00	39.89	42.336	LGM
AITR1392-PWC1-FHC1-D-MH1-ETW2-1	4	12.0160	1.5080	0.1307	0.0082	0.2506	0.6280	5.877	6.0176	1.9174	7029.00	35.66	36.876	LGF
AITR1392-PWC1-FHC1-D-MH1-ETW2-2	4	12.0150	1.5080	0.1316	0.0082	0.2507	0.6290	5.877	6.0152	1.9050	7649.00	38.54	40.129	LGM
AITR1392-PWC1-FHC1-D-MH1-ETW2-3	4	12.0160	1.5050	0.1312	0.0082	0.2508	0.6250	5.878	6.0008	1.9116	FM			LWT
AITR1392-PWC1-FHC1-D-MH1-ETW2-4	4	12.0150	1.5080	0.1318	0.0082	0.2508	0.6290	5.877	6.0128	1.9029	7158.00	36.01	37.553	LGF
AITR1392-PWC1-FHC1-D-MH2-ETW2-1	4	12.0090	1.5075	0.1321	0.0083	0.2506	0.6290	5.866	6.0156	1.8978	7385.00	37.10	38.757	LGM
AITR1392-PWC1-FHC1-D-MH2-ETW2-2	4	12.0100	1.5080	0.1337	0.0084	0.2506	0.6290	5.865	6.0176	1.8743	7441.00	36.91	39.038	LGF
AITR1392-PWC1-FHC1-D-MH2-ETW2-3	4	12.0100	1.5080	0.1338	0.0084	0.2506	0.6290	5.866	6.0176	1.8729	FM			LAT
AITR1392-PWC1-FHC1-D-MH2-ETW2-4	4	12.0080	1.5090	0.1339	0.0084	0.2502	0.6290	5.865	6.0312	1.8686	7383.00	36.54	38.708	LGM
Minimum		12.0060	1.5050	0.1307	0.0082	0.2500	0.6250	5.8650	5.9833	1.8624	7029.0000	35.6629	36.876	
Maximum		12.0160	1.5090	0.1352	0.0084	0.2517	0.6310	5.8780	6.0360	1.9174	9488.0000	47.0237	49.777	
Average		12.0103	1.5080	0.1328	0.0083	0.2505	0.6280	5.8720	6.0196	1.8869	7875.3044	39.2410	41.317	
Standard Deviation		0.0029	0.0010	0.0013	0.0001	0.0004	0.0014	0.0046	0.0128	0.0189	614.2649	2.8705	3.223	
Coefficient of Variation (%)		0.02	0.07	0.99	0.99	0.17	0.22	0.08	0.21	1.00	7.80	7.32	7.80	
No. Specimens		24	24	24	24	24	24	24	24	24	16	16	16	

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















<b>Input:</b>	Test Plan Prefix		Test Plan #	Material		Test	Cure Cycle	Condition											
	AITR		1392	PWC1		PB2	MH	ETW2											

**Test Group: AITR1392-PWC1-PB2-MH-ETW2**

<b>Material:</b> <u>MTM45-1/CF0525-36%RW</u>	Normalization: <u>NA</u>	Cured Ply Thickness: <u>0.0079</u>	<b>ACG, Inc.</b> <b>Material &amp; Process</b> <b>Laboratory Report</b>
Test Type: <u>Single Shear Pin Bearing Layup 2</u>	Condition: <u>ETW2</u>	#Plies: <u>20</u>	
Test Method: <u>MP1120 (ASTMD5961)</u>			

Specimen ID	Batch	Width, in.	Thickness, in.	Cured Ply Thickness:	Diameter	Hole Center-End (e)	Hole Edge-Side (g)	Hole Edge-End (f)	Hole-Edge/Diameter (e/D)	Width/Diameter	Diameter/Thickness	Strength, ksi							Failure Mode	
												Initial Peak	norm	Ultimate	norm	2% Offset	norm	4% Offset		norm
AITR1392-PWC1-PB2-A-MH1-ETW2-1	1	1.5058	0.1671	0.0084	0.2504	0.7529	0.6258	0.6277	3.0068	6.014	1.498	97.10	102.706	97.10	102.706	72.32	76.489	80.06	84.674	B1I
AITR1392-PWC1-PB2-A-MH1-ETW2-2	1	1.5033	0.1635	0.0082	0.2506	0.7519	0.6255	0.6266	3.0004	5.999	1.533	91.24	94.394	91.24	94.394	66.85	69.159	76.51	79.161	B1I
AITR1392-PWC1-PB2-A-MH1-ETW2-3	1	1.5051	0.1639	0.0082	0.2506	0.7513	0.6250	0.6260	2.9980	6.006	1.529	88.90	92.221	88.90	92.221	72.23	74.923	80.78	83.793	B1I
AITR1392-PWC1-PB2-A-MH1-ETW2-4	1	1.5062	0.1636	0.0082	0.2501	0.7523	0.6264	0.6272	3.0078	6.022	1.529	81.50	84.377	81.50	84.377	50.92	52.717	75.04	77.688	B1I
AITR1392-PWC1-PB2-A-MH2-ETW2-1	1	1.5043	0.1656	0.0083	0.2503	0.7503	0.6262	0.6251	2.9974	6.010	1.511	88.22	92.482	88.22	92.482	62.76	65.792	78.46	82.254	B1I
AITR1392-PWC1-PB2-A-MH2-ETW2-2	1	1.5047	0.1651	0.0083	0.2512	0.7518	0.6270	0.6262	2.9928	5.990	1.521	94.07	98.302	94.07	98.302	76.33	79.769	83.18	86.929	B1I
AITR1392-PWC1-PB2-A-MH2-ETW2-3	1	1.5034	0.1648	0.0082	0.2500	0.7518	0.6264	0.6268	3.0072	6.014	1.517	94.27	98.323	94.27	98.323	53.19	55.477	74.10	77.289	B1I
AITR1392-PWC1-PB2-A-MH2-ETW2-4	1	1.5043	0.1663	0.0083	0.2502	0.7518	0.6272	0.6267	3.0048	6.012	1.505	90.53	95.288	90.53	95.288	63.28	66.601	74.94	78.873	B1I
AITR1392-PWC1-PB2-E-MH1-ETW2-1	5	1.5082	0.1665	0.0083	0.2504	0.7513	0.6267	0.6261	3.0004	6.023	1.504	91.63	96.574	91.63	96.574	59.32	62.527	71.75	75.624	B1I
AITR1392-PWC1-PB2-E-MH1-ETW2-2	5	1.5077	0.1675	0.0084	0.2501	0.7511	0.6246	0.6260	3.0030	6.029	1.494	83.16	88.136	83.16	88.136	66.67	70.662	75.84	80.373	B1I
AITR1392-PWC1-PB2-E-MH1-ETW2-3	5	1.5082	0.1691	0.0085	0.2511	0.7519	0.6260	0.6263	2.9942	6.006	1.485	85.86	91.862	85.86	91.862	67.11	71.799	77.48	82.900	B1I
AITR1392-PWC1-PB2-E-MH1-ETW2-4	5	1.5080	0.1690	0.0084	0.2502	0.7491	0.6233	0.6240	2.9940	6.027	1.481	87.10	93.158	87.10	93.158	64.13	68.584	70.41	75.301	B1I
AITR1392-PWC1-PB2-E-MH2-ETW2-1	5	1.5032	0.1633	0.0082	0.2500	0.7550	0.6270	0.6300	3.0200	6.013	1.531	95.16	98.328	95.16	98.328	67.63	69.884	76.82	79.376	B1I
AITR1392-PWC1-PB2-E-MH2-ETW2-2	5	1.5045	0.1637	0.0082	0.2500	0.7495	0.6230	0.6245	2.9980	6.018	1.527	86.45	89.589	86.45	89.589	72.18	74.802	79.67	82.556	B1I
AITR1392-PWC1-PB2-E-MH2-ETW2-3	5	1.5037	0.1641	0.0082	0.2504	0.7492	0.6240	0.6240	2.9920	6.005	1.526	84.43	87.677	84.43	87.677	59.87	62.177	70.00	72.693	B1I
AITR1392-PWC1-PB2-E-MH2-ETW2-4	5	1.5041	0.1686	0.0084	0.2502	0.7537	0.6274	0.6286	3.0124	6.012	1.484	80.39	85.773	80.39	85.773	58.81	62.745	69.43	74.084	B1I
AITR1392-PWC1-PB2-D-MH1-ETW2-1	4	1.5034	0.1637	0.0082	0.2505	0.7523	0.6270	0.6270	3.0030	6.002	1.530	85.34	88.416	85.34	88.416	44.79	46.408	61.21	63.416	B1I
AITR1392-PWC1-PB2-D-MH1-ETW2-2	4	1.5043	0.1629	0.0081	0.2502	0.7521	0.6264	0.6270	3.0060	6.013	1.536	83.38	85.938	83.38	85.938	53.26	54.895	69.81	71.957	B1I
AITR1392-PWC1-PB2-D-MH1-ETW2-3	4	1.5034	0.1646	0.0082	0.2510	0.7518	0.6270	0.6263	2.9952	5.990	1.525	84.47	88.015	84.47	88.015	60.43	62.967	68.14	71.001	B1I
AITR1392-PWC1-PB2-D-MH1-ETW2-4	4	1.5035	0.1640	0.0082	0.2506	0.7518	0.6263	0.6265	3.0000	6.000	1.529	85.27	88.482	85.27	88.482	48.12	49.929	59.26	61.490	B1I
AITR1392-PWC1-PB2-D-MH2-ETW2-1	4	1.5055	0.1630	0.0082	0.2520	0.7520	0.6244	0.6260	2.9841	5.974	1.546	81.18	83.744	81.18	83.744	44.90	46.323	60.12	62.018	B1I
AITR1392-PWC1-PB2-D-MH2-ETW2-2	4	1.5051	0.1618	0.0081	0.2516	0.7521	0.6271	0.6263	2.9893	5.982	1.555	87.63	89.753	87.63	89.753	47.57	48.724	56.96	58.338	B1I
AITR1392-PWC1-PB2-D-MH2-ETW2-3	4	1.5067	0.1612	0.0081	0.2501	0.7514	0.6260	0.6263	3.0042	6.024	1.552	91.01	92.845	91.01	92.845	64.91	66.217	72.37	73.828	B1I
AITR1392-PWC1-PB2-D-MH2-ETW2-4	4	1.5069	0.1634	0.0082	0.2502	0.7506	0.6260	0.6255	3.0000	6.023	1.531	78.87	81.561	78.87	81.561	42.16	43.601	56.97	58.910	B1I
Minimum		1.5032	0.1612		0.2500	0.7491	0.6230	0.6240	2.9841	5.9743	1.4806	78.8740	81.561	78.8740	81.561	42.1640	43.601	56.9560	58.338	
Maximum		1.5082	0.1691		0.2520	0.7550	0.6274	0.6300	3.0200	6.0285	1.5547	97.1030	102.706	97.1030	102.706	76.3310	79.769	83.1820	86.929	
Average		1.5052	0.1648		0.2505	0.7516	0.6259	0.6264	3.0005	6.0086	1.5199	87.3805	91.164	87.3805	91.164	59.9886	62.632	71.6366	74.772	
Standard Deviation		0.0017	0.0022		0.0005	0.0013	0.0012	0.0013	0.0078	0.0142	0.0207	4.9495	5.331	4.9495	5.331	9.8364	10.547	7.7465	8.423	
Coefficient of Variation (%)		0.11	1.32		0.21	0.17	0.20	0.21	0.26	0.24	1.36	5.66	5.85	5.66	5.85	16.40	16.84	10.81	11.27	
No. Specimens		24	24		24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24

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







<b>Input:</b>	Test Plan Prefix		Test Plan #	Material	Test	Cure Cycle	Condition							
	AITR		1392	PWC1	ILT1	MH	ETW2							

**Test Group: AITR1392-PWC1-ILT1-MH-ETW2**

<b>Material:</b> <u>MTM45-1/CF0525-36%RW</u>	Normalization: <u>NA</u>	Cured Ply Thickness: <u>0.0079</u>	<b>Normalized</b>
Test Type: <u>Interlaminar Tension Layup 1</u>	Condition: <u>ETW2</u>	#Plies: <u>20</u>	
Test Method: <u>MP1122 (ASTMD6415)</u>			

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

Specimen ID	Batch	ASTM D6415 Spec. Dimensions*					Ultimate (peak)**						Failure Mode	CPT	σ <sub>r</sub> , ksi
		Thick, In.	Width, in.	r <sub>inner</sub> , in	r <sub>outer</sub> , in	Angle, Deg	d <sub>y</sub> , in	Φ, deg	Δ, in	P, lb	CBS, in-lb/in	σ <sub>r</sub> , ksi			
AITR1392-PWC1-ILT1-A-MH1-ETW2-1	1	0.2128	1.010	0.2500	0.4628	90.0000	1.0998	38.0642	0.218	232.000	157.63	3.2659	ILT	0.0106	2.4245
AITR1392-PWC1-ILT1-A-MH1-ETW2-2	1	0.1785	1.010	0.2500	0.4285	90.0000	1.0331	36.7033	0.236	263.000	165.90	4.2594	ILT	0.0089	3.7703
AITR1392-PWC1-ILT1-A-MH1-ETW2-3	1	0.1815	1.011	0.2500	0.4315	90.0000	1.0458	37.1317	0.228	251.000	161.00	4.0513	ILT	0.0091	3.5267
AITR1392-PWC1-ILT1-A-MH1-ETW2-4	1	0.2060	1.010	0.2500	0.4560	90.0000	1.1037	38.5289	0.204	214.000	147.15	3.1734	ILT	0.0103	2.4340
AITR1392-PWC1-ILT1-A-MH1-ETW2-5	1	0.1885	1.011	0.2500	0.4385	90.0000	1.0509	37.0333	0.233	250.000	160.70	3.8623	ILT	0.0094	3.2374
AITR1392-PWC1-ILT1-A-MH1-ETW2-6	1	0.1692	1.011	0.2500	0.4192	90.0000	1.0279	36.9122	0.228	267.000	168.42	4.6133	ILT	0.0085	4.3088
AITR1392-PWC1-ILT1-A-MH1-ETW2-7	1	0.2138	1.010	0.2500	0.4638	90.0000	1.1018	38.1058	0.217	226.000	153.85	3.1693	ILT	0.0107	2.3418
AITR1392-PWC1-ILT1-A-MH1-ETW2-8	1														
Minimum		0.1692	1.0102	0.2500	0.4192	90.0000	1.0279	36.7033	0.2044	214.0000	147.15	3.17		0.01	2.34
Maximum		0.2138	1.0110	0.2500	0.4638	90.0000	1.1037	38.5289	0.2361	267.0000	168.42	4.61		0.01	4.31
Average		0.1929	1.0105	0.2500	0.4429	90.0000	1.0661	37.4971	0.2235	243.2857	159.24	3.77		0.01	3.15
Standard Deviation		0.0179	0.0003	0.0000	0.0179	0.0000	0.0342	0.7162	0.0109	19.7460	7.21	0.58		0.00	0.77
Coefficient of Variation (%)		9.29	0.03	0.00	4.05	0.00	3.21	1.91	4.87	8.12	4.53	15.35		9.29	24.49
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) Summary

normalizing  $t_{ply}$   
[in]

0.0079

Specimen Number	ACG Code	ACG Batch #	ACG Cure Cycle	Prepreg Lot #	Cure Cycle Batch #	Measured Impact Energy (in-lbf)	Strength [ksi]	Avg. Specimen Thckn. [in]	# Plies in Laminate	Failure Mode
CKKA111A	AITR1392-PWC1-CAI1-A-MH-RTD-1	A	MH1	1	3	249.210	31.746	0.171	20	LDM
CKKA111A	AITR1392-PWC1-CAI1-A-MH-RTD-2	A	MH1	1	3	248.980	31.865	0.166	20	LDM
CKKA111A	AITR1392-PWC1-CAI1-A-MH-RTD-3	A	MH1	1	3	249.240	31.709	0.169	20	LDM
CKKA111A	AITR1392-PWC1-CAI1-A-MH-RTD-4	A	MH1	1	3	249.300	32.520	0.167	20	LDM
CKKA111A	AITR1392-PWC1-CAI1-A-MH-RTD-5	A	MH1	1	3	248.740	31.331	0.172	20	LDM
CKKA111A	AITR1392-PWC1-CAI1-A-MH-RTD-6	A	MH1	1	3	249.190	34.959	0.162	20	LGM
CKKA111A	AITR1392-PWC1-CAI1-A-MH-RTD-7	A	MH1	1	3	249.300	31.919	0.172	20	LGM
CKKA111A	AITR1392-PWC1-CAI1-A-MH-RTD-8	A	MH1	1	3	249.050	34.978	0.158	20	LDM

Avg. $t_{ply}$ [in]	Strength <sub>norm</sub> [ksi]
0.009	34.351
0.008	33.522
0.008	33.853
0.008	34.317
0.009	34.041
0.008	35.763
0.009	34.758
0.008	34.878

**32.63**

**1.48**

**4.54**

**31.33**

**34.98**

**8**

Average<sub>norm</sub>

Standard Dev<sub>norm</sub>

Coeff. of Var. [%]<sub>norm</sub>

Min.

Max.

Number of Spec.

**0.00841**

**0.70**

**2.03**

**0.0081**

**0.0086**

**8**

**34.44**

**33.52**

**33.85**

**34.32**

**34.04**

**35.76**

**34.76**

**34.88**