Input:							Orientation				

MTM45-1/AS4-145-32%RW Normalization: Cured Ply Thickness: CTD

Specimen ID	Length, in.	Width, in.	Thickness, in.	Cured Ply Thickness:	Ultimate Load, lb.	Failure Mode	Ultimate Strength [(1)], ksi		Modulus, Msi		
	10.032	1.0058	0.0895	0.0056							
	10.036	0.9997	0.0862	0.0054	NT		290.524	284.581	18.65	18.272	NT
AITR1392-ASU1-LT-A-MH2-CTD-2	10.031	1.0074	0.0903	0.0056	NT		229.338	235.332	18.93	19.421	NT
AITR1392-ASU1-LT-A-MH2-CTD-3	10.039	1.0074	0.0909	0.0057	NT		255.635	264.059	18.43	19.036	NT
AITR1392-ASU1-LT-A-MH2-CTD-4	10.032	1.0070	0.0879	0.0055	NT				NT		NT
AITR1392-ASU1-LT-B-MH1-CTD-1	10.031	1.0082	0.0891	0.0056	NT				18.28	18.504	NT
AITR1392-ASU1-LT-B-MH1-CTD-2	10.031	1.0090	0.0884	0.0055	NT				19.17	19.259	NT
AITR1392-ASU1-LT-B-MH1-CTD-3	10.037	1.0084	0.0885	0.0055	NT		252.770	254.111	18.69	18.789	NT
AITR1392-ASU1-LT-B-MH1-CTD-4	10.032	1.0087	0.0877	0.0055	NT		257.881	257.100	NT		NT
AITR1392-ASU1-LT-B-MH2-CTD-1	10.036	1.0073	0.0814	0.0051	NT		287.969	266.262	20.09	18.578	NT
AITR1392-ASU1-LT-B-MH2-CTD-2	10.039	1.0066	0.0842	0.0053	NT		255.858	244.906	20.00	19.140	NT
AITR1392-ASU1-LT-B-MH2-CTD-3	10.041	1.0067	0.0819	0.0051	NT		286.222	266.273	19.74	18.360	NT
AITR1392-ASU1-LT-B-MH2-CTD-4	10.035	1.0068	0.0853	0.0053	NT		285.013	276.376	NT		NT
AITR1392-ASU1-LT-C-MH1-CTD-1	10.067	1.0083	0.0840	0.0053	NT		284.023	271.113	18.39	17.550	NT
AITR1392-ASU1-LT-C-MH1-CTD-2	10.064	1.0073	0.0841	0.0053	NT		263.728	252.040	18.79	17.958	NT
AITR1392-ASU1-LT-C-MH1-CTD-3	10.066	1.0078	0.0834	0.0052	NT		251.952	238.686	19.62	18.589	NT
AITR1392-ASU1-LT-C-MH1-CTD-4	10.067	1.0075	0.0860	0.0054	NT		286.682	280.275	NT		NT
AITR1392-ASU1-LT-C-MH2-CTD-1	10.064	1.0095	0.0881	0.0055	NT		292.729	293.062	19.90	19.921	NT
AITR1392-ASU1-LT-C-MH2-CTD-2	10.068	1.0097	0.0888	0.0055	NT		255.609	257.835	17.69	17.848	NT
AITR1392-ASU1-LT-C-MH2-CTD-3	10.065	1.0096	0.0856	0.0054	NT		247.651	240.897	18.85	18.335	NT
AITR1392-ASU1-LT-C-MH2-CTD-4	10.063	1.0095	0.0862	0.0054	NT		266.673	261.218	NT		NT
	10.0306	0.9997	0.0814	0.0051			229.338	235.332	17.426	17.550	
Maximum	10.0678	1.0097	0.0920	0.0058			292.729	293.062	20.093	20.217	
Average	10.0454	1.0073	0.0871	0.0054			266.770	263.100	18.956	18.744	
Standard Deviation	0.0149	0.0021	0.0029	0.0002			17.560	15.735	0.758	0.779	
Coefficient of Variation (%)	0.15	0.21	3.35	3.35			6.58	5.98	4.00	4.16	
No. Specimens	24	24	24	24			21	21	18	18	

Notes:
NT=Not Tested
NR=No Result
GE=Gage Error
FM=Failure Mode Unacceptable
(1) Derived in accordance with AI/TR/1392 Table 3a , note (1)

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	LC	MH	RTD

Test Group: AITR1392-ASU1-LC-MH-RTD

Material: 0.0055 #Plies: 16 **ACG, Inc.**

Test Type: Longitudinal Compression Condition: **Material & Process**

Test Method: MP1114 (ASTMD6641) Modulus/Poisson's Range: Cm2(l(A)3(S)1(T)2(M)6(D)3(6641))]TJ ET 112.92 533.76 86.999 0.48 re f EMC BT /P <</MCID 107

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	LC	MH	ETW2

Test Group: AITR1392-ASU1-LC-MH-ETW2

Material: 0.0055 #Plies: 16

ACG, Inc.
Material & Process
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Test Type: Longitudinal Compression Condition:

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

						Measured	Normalized	Measured	Normalized	
AITR1392-ASU1-LC-A-MH1-ETW2-1	5.505	0.5096	0.0915	0.0057	NT	119.684	124.489	GE		GE
AITR1392-ASU1-LC-A-MH1-ETW2-2	5.507	0.5100	0.0885	0.0055	NT	131.112	131.807	19.12	19.218	0.362
AITR1392-ASU1-LC-A-MH1-ETW2-3	5.506	0.5101	0.0883	0.0055	NT	137.771	138.240	19.66	19.723	0.399
AITR1392-ASU1-LC-A-MH1-ETW2-4	5.506	0.5106	0.0870	0.0054	NT	158.808	157.003	GE		GE
AITR1392-ASU1-LC-A-MH2-ETW2-1	5.505	0.5068	0.0877	0.0055	NT	139.404	138.876	GE		GE
AITR1392-ASU1-LC-A-MH2-ETW2-2	5.505	0.5072	0.0881	0.0055	NT	123.181	123.321	GE		GE
AITR1392-ASU1-LC-A-MH2-ETW2-3	5.503	0.5074	0.0880	0.0055	NT	145.200	145.200	GE		GE
AITR1392-ASU1-LC-A-MH2-ETW2-4	5.503	0.5076	0.0878	0.0055	NT	145.711	145.325	GE		GE
AITR1392-ASU1-LC-B-MH1-ETW2-1	5.505	0.5079	0.0900	0.0056	NT	141.250	144.514	GE		GE
AITR1392-ASU1-LC-B-MH1-ETW2-2	5.502	0.5083	0.0905	0.0057	NT	145.925	150.015	GE		GE
AITR1392-ASU1-LC-B-MH1-ETW2-3	5.505	0.5080	0.0888	0.0055	NT	145.629	146.898	19.40	19.564	0.325
AITR1392-ASU1-LC-B-MH1-ETW2-4	5.501	0.5076	0.0935	0.0058	NT					

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	TT	MH	ETW2

Test Group: AITR1392-ASU1-TT-MH-ETW2

Material: 0.0055 #Plies: 16

Test Type: Transverse Tensile Condition:

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

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							Measured	Normalized	Measured	Normalized	
AITR1392-ASU1-TT-A-MH1-ETW2-1	10.054	1.0079	0.0890	0.0056	305.00	LWT	3.399	3.439	0.94	0.952	NT
AITR1392-ASU1-TT-A-MH1-ETW2-2	10.047	1.0077	0.0892	0.0056	265.00	LWT	2.947	2.988	1.01	1.025	NT
AITR1392-ASU1-TT-A-MH1-ETW2-3	10.052	1.0079	0.0886	0.0055	289.00	LAT	3.237	3.258	GE		NT
AITR1392-ASU1-TT-A-MH1-ETW2-4	10.053	1.0071	0.0897	0.0056	NT				NT		NT
AITR1392-ASU1-TT-A-MH2-ETW2-1	10.063	1.0073	0.0925	0.0058	FM	LIT			1.08	1.136	NT
AITR1392-ASU1-TT-A-MH2-ETW2-2	10.046	1.0068	0.0912	0.0057	274.00	LAT	2.984	3.093	0.83	0.862	NT
AITR1392-ASU1-TT-A-MH2-ETW2-3	10.054	1.0066	0.0886	0.0055	257.00	LAT	2.883	2.901	0.86	0.865	NT
AITR1392-ASU1-TT-A-MH2-ETW2-4	10.054	1.0084	0.0896	0.0056	268.00	LWT	2.967	3.020	GE		NT
AITR1392-ASU1-TT-B-MH1-ETW2-1	10.069	1.0093	0.0903	0.0056	250.00	LGB	2.742	2.815	0.90	0.919	NT
AITR1392-ASU1-TT-B-MH1-ETW2-2	10.063	1.0091	0.0900	0.0056	294.00	LGB	3.236	3.311	0.92	0.936	NT
AITR1392-ASU1-TT-B-MH1-ETW2-3	10.075	1.0094	0.0899	0.0056	243.00	LWT	2.677	2.736	1.21	1.236	NT
AITR1392-ASU1-TT-B-MH1-ETW2-4	10.068	1.0091	0.0903	0.0056	NT				NT		NT
AITR1392-ASU1-TT-B-MH2-ETW2-1	10.057	1.0084	0.0915	0.0057	273.00	LGM	2.959	3.077	0.80	0.832	NT
AITR1392-ASU1-TT-B-MH2-ETW2-2	10.067	1.0087	0.0915	0.0057	259.00	LGM	2.807	2.918	GE		NT
AITR1392-ASU1-TT-B-MH2-ETW2-3	10.065	1.0087	0.0900	0.0056	301.00				1-T</MCID 772 >>BC	9 >>B4.795 8[illegible]MCID 772 >>	

Test Plan Prefix	Test Plan #	Material	Test

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	UNT0	MH	ETW

Test Group: AITR1392-ASU1-UNT0-MH-ETW

Material: 0.0055 #Plies: 16

ACG, Inc.
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Test Type: 0/90 Unnotched Tensile Condition:

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

							Measured	Normalized	Measured	Normalized	
AITR1392-ASU1-UNT0-A-MH1-ETW-1	10.032	1.0038	0.0886	0.0055	12285.00	DAB/LAT	138.137	139.078	10.16	10.233	NT
AITR1392-ASU1-UNT0-A-MH1-ETW-2	10.039	1.0037	0.0898	0.0056	12939.00						

<</MCID 191 >>BDC BT /TT1 1 Tf 0.007 8.76 -0 0 8.76 435.36 501.48 Tm
1.0040 <</MCID 191 >>BDC 8.76 -0 0 8.76 348.6 470.88 Tm [(0.)11(0056)]TJ ET EMC /P <</MCID 30MC /P

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	UNT0	MH	ETW2

Test Group: AITR1392-ASU1-UNT0-MH-ETW2

Material: 0.0055 #Plies: 16

Test Type: 0/90 Unnotched Tensile Condition:

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

ACG, Inc.
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							Measured	Normalized	Measured	Normalized	
AITR1392-ASU1-UNT0-A-MH1-ETW2-1	10.039	1.0037	0.0895	0.0056	11800.00	LAT/LAB	131.309	133.597	GE		NT
AITR1392-ASU1-UNT0-A-MH1-ETW2-2	10.032	1.0039	0.0896	0.0056	12022.00	DWB/LAT	133.703	136.083	GE		NT
AITR1392-ASU1-UNT0-A-MH1-ETW2-3	10.034	1.0038	0.0897	0.0056	12499.00	LAT	138.810	141.492	GE		NT
AITR1392-ASU1-UNT0-A-MH1-ETW2-4	10.033	1.0034	0.0903	0.0056	NT				NT		NT
AITR1392-ASU1-UNT0-A-MH2-ETW2-1	10.033	1.0078	0.0893	0.0056	11616.00	LAT	129.067	130.974	11.19	11.351	NT
AITR1392-ASU1-UNT0-A-MH2-ETW2-2	10.044	1.0076	0.0885	0.0055	11974.00	LAT/LAB	134.224	135.037	10.30	10.359	NT
AITR1392-ASU1-UNT0-A-MH2-ETW2-3	10.042	1.0074	0.0891	0.0056	11441.00	LAT	127.511	129.056	10.85	10.977	NT
AITR1392-ASU1-UNT0-A-MH2-ETW2-4	10.034	1.0077	0.0887	0.0055	NT				NT		NT
AITR1392-ASU1-UNT0-B-MH1-ETW2-1	10.035										

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	UNC0	MH	CTD

Test Group: AITR1392-ASU1-UNC0-MH-CTD

Material: 0.0055 #Plies: 16

ACG, Inc.
Material & Process
Laboratory Report6641)

Test Type: 90/0 Compression Condition:

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

Measured	Normalized	Measured	Normalized

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	UNC0	MH	RTD

Test Group: AITR1392-ASU1-UNC0-MH-RTD

Material: 0.0055 #Plies: 16

Test Type: 90/0 Compression Condition:

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

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							Measured	Normalized	Measured	Normalized	
AITR1392-ASU1-UNC0-A-MH1-RTD-1	5.506	0.5068	0.0892	0.0056	5000.00	HIT/BGT	110.645	112.112	8.67	8.789	0.035
AITR1392-ASU1-UNC0-A-MH1-RTD-2	5.505	0.5065	0.0883	0.0055	4993.00	HIT/BGT	111.612	112.014	8.92	8.947	0.040
AITR1392-ASU1-UNC0-A-MH1-RTD-3	5.507	0.5087	0.0898	0.0056	5133.00	BGT	112.373	114.671	8.54	8.716	0.026
AITR1392-ASU1-UNC0-A-MH1-RTD-4	5.506	0.5092	0.0883	0.0055	5278.00	BGM	117.354	117.799	8.69	8.718	0.035
AITR1392-ASU1-UNC0-A-MH2-RTD-1	5.506	0.5093	0.0893	0.0056	4377.00	HIT/BGM	96.197	97.654	9.66	9.806	0.033
AITR1392-ASU1-UNC0-A-MH2-RTD-2	5.495	0.5065	0.0890	0.0056	4607.00	BGT	102.245	103.368	9.65	9.753	0.030
AITR1392-ASU1-UNC0-A-MH2-RTD-3	5.507	0.5094	0.0891	0.0056	4765.00	HIT/BGM	104.985	106.297	10.59	10.719	0.034
AITR1392-ASU1-UNC0-A-MH2-RTD-4	5.505	0.5069	0.0886	0.0055	5013.00	HIT/BGB	111.571				

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	UNC0	MH	ETD

In-Plane Shear Properties (IPS)--CTD (-65ºF)
Strength & Modulus

Specimen Number	Solvay Batch #	Solvay Cure Cycle	Prepreg Lot #	Cure Cycle #	0.2% Offset Strength [ksi]	*Strength at 5% Strain [ksi]	Modulus [Msi]	Avg. Specimen Thickness [in]	# Plies in Laminate	Avg. t_{ply} [in]

Average	8.363	13.37	0.6911	0.005479
Standard Dev.	0.1477	0.2273	0.01426	
Coeff. of Var. [%]	1.765	1.700	2.064	
Min.	8.066	12.92	0.6673	0.005329
Max.	8.603	13.81	0.7102	0.005663
Number of Spec.	28	28	28	28

In-Plane Shear Properties (IPS)--ETD (200ÁF)
Strength & Modulus

Specimen Number	Solvay Batch #	Solvay Cure Cycle	Prepreg Lot #	Cure Cycle #	0.2% Offset Strength [ksi]	Strength at 5% Strain [ksi]	Modulus [Msi]	Avg. Specimen Thickness [in]	# Plies in Laminate	Avg. t_{ply} [in]
Average					**4.905**	**7.284**	**0.4647**			**0.005449**
Standard Dev.					**0.08220**	**0.07810**	**0.01206**			
Coeff. of Var. [%]					**1.676**	**1.072**	**2.594**			
Min.					**4.755**	**7.142**	**0.4462**			**0.005338**
Max.					**5.074**	**7.424**	**0.4831**			**0.005592**
Number of Spec.					**16**	**16**	**16**			**16**

Specimen Number	Solvay Batch #	Solvay Cure Cycle	Prepreg Lot #	Cure Cycle #	0.2% Offset

In-Plane Shear Properties (IPS)--ETW2 (250ÁF)
Strength & Modulus

Specimen Number	Solvay Batch #	Solvay Cure Cycle	Prepreg Lot #	Cure Cycle #	0.2% Offset Strength [ksi]	Strength at 5% Strain [ksi]	Modulus [Msi]	Avg. Specimen Thickness [in]	# Plies in Laminate	Avg. t_{ply} [in]
Average					**3.243**	**4.789**	**0.3402**			**0.005460**
Standard Dev.					**0.07858**	**0.1097**	**0.009213**			
Coeff. of Var. [%]					**2.423**	**2.292**	**2.708**			
Min.					**3.143**	**4.629**	**0.3274**			**0.005377**
Max.					**3.425**	**5.021**	**0.3592**			**0.005598**
Number of Spec.					**28**	**28**	**28**			**28**

Input:

Orientation
[0]16

MTM45-1/AS4-145-32%RW

Span (4t): 0.35

Laboratory Report

Specimen ID	Length, in.	Width, in.	Thickness, in.	Cured Ply Thickness:	Ultimate Load, lb.	Failure Mode	Ultimate Strength, ksi Measured	Normalized
AITR1392-ASU1-SBS-A-MH1-CTD-1	0.518	0.2545	0.0901	0.0056	491.00	ILS	16.059	16.443
AITR1392-ASU1-SBS-A-MH1-CTD-2	0.514	0.2543	0.0880	0.0055	485.00	ILS	16.259	16.252
AITR1392-ASU1-SBS-A-MH1-CTD-3	0.515	0.2545	0.0895	0.0056	463.00	ILS	15.251	15.505
»kú‡` v)%d0 U^ìÍ@0.0890								
AITR1392-ASU1-SBS-B-MH1-CTD-1	0.512	0.2565	0.0877	0.0055	468.00	ILS	15.598	15.550
AITR1392-ASU1-SBS-B-MH1-CTD-2	0.518	0.2550	0.0884	0.0055	471.00	ILS	15.671	15.742
AITR1392-ASU1-SBS-B-MH1-CTD-3	0.515	0.2557	0.0876	0.0055	507.00	FCC/ILS	16.985	16.901
AITR1392-ASU1-SBS-B-MH1-CTD-4	0.516	0.2565	0.0876	0.0055	NT			
	0.2555	0.0845	0.0053	451.00	ILS	15.661	15.044	
MH1-CTD-4	0.516	0.2560	0.0836	0.0052	NT			
MH2-CTD-1	0.514	0.2550	0.0863	0.0054	478.00	ILS	16.284	15.976
MH2-CTD-2	0.517	0.2555	0.0880	0.0055	465.00	ILS	15.511	15.511
MH2-CTD-3	0.516	0.2565	0.0871	0.0054	495.00	ILS	16.617	16.447
MH2-CTD-4	0.517	0.2545	0.0881	0.0055	NT			
0.5095	0.2543	0.0836	0.0052	451.00		15.251	15.044	
0.5180	0.2565	0.0918	0.0057	517.00		17.395	17.279	
0.5153	0.2554	0.0875	0.0055	487.00		16.351	16.250	
0.0020	0.0007	0.0019	0.0001	20.04		0.636	0.665	
0.38								
Minimum				0.26	2.12	2.12	4.12	3.89	4.09
Maximum			24	24	24	24	18	18	18

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

Input:	Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
	AITR	1392	ASU1	OHT1	MH	CTD

Test Group: AITR1392-ASU1-OHT1-MH-CTD

Material: Normalization: NA Cured Ply Thickness: 0.0055

Test Type: Open-Hole Tension Layup 1 Condition: CTD #Plies: 24

Test Method: MP1117 (ASTMD5766)

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Material & Process
Laboratory Report

				Cured Ply Thickness:	Diameter						Normalized
AITR1392-ASU1-OHT1-A-MH1-CTD-1	11.5041	1.5088	0.1338	0.0056	0.2511	85.9584	0.0887	11819.69	58.53	AGM	59.35
AITR1392-ASU1-OHT1-A-MH1-CTD-2	11.5040	1.5080	0.1341	0.0056	0.2510	85.8081	0.0889	11402.03	56.40	AGM	57.28
AITR1392-ASU1-OHT1-A-MH1-CTD-3	11.5042	1.5084	0.1346	0.0056	0.2499	85.4695	0.0892	11819.54	58.22	AGM	59.36
AITR1392-ASU1-OHT1-A-MH1-CTD-4	11.5039	1.5085	0.1341	0.0056	0.2506	85.7860	0.0889	NT			
AITR1392-ASU1-OHT1-A-MH2-CTD-1	11.5042	1.5091	0.1351	0.0056	0.2512	85.1322	0.0895	11583.12	56.80	AGM	58.15
AITR1392-ASU1-OHT1-A-MH2-CTD-2	11.5039	1.5095	0.1340	0.0056	0.2510	85.8714	0.0887	12033.99	59.51	AGM	60.40
AITR1392-ASU1-OHT1-A-MH2-CTD-3	11.5035	1.5093	0.1341	0.0056	0.2506	85.7617	0.0889	11482.11	56.72	AGM	57.63
AITR1392-ASU1-OHT1-A-MH2-CTD-4	11.5042	1.4997	0.1339	0.0056	0.2511	85.9164	0.0893	NT			
AITR1392-ASU1-OHT1-B-MH1-CTD-1	11.5023	1.5046	0.1302	0.0054	0.2515	88.3433	0.0865	11287.01	57.62	AGM	56.83
AITR1392-ASU1-OHT1-B-MH1-CTD-2	11.5023	1.5049	0.1284	0.0054	0.2503	89.5818	0.0853	11313.40	58.55	AGM	56.95
AITR1392-ASU1-OHT1-B-MH1-CTD-3	11.5026	1.5041	0.1278	0.0053	0.2508	90.0282	0.0849	11071.96	57.61	AGM	55.77
AITR1392-ASU1-OHT1-B-MH1-CTD-4	11.5033	1.5051	0.1305	0.0054	0.2511	88.1479	0.0867	NT			
AITR1392-ASU1-OHT1-B-MH2-CTD-1	11.5000	1.5085	0.1319	0.0055	0.2510	87.1652	0.0875	11345.35	57.00	AGM	56.98
AITR1392-ASU1-OHT1-B-MH2-CTD-2	11.5002	1.5088	0.1315	0.0055	0.2507	87.4318	0.0872	11810.61	59.51	AGM	59.30
AITR1392-ASU1-OHT1-B-MH2-CTD-3	11.4995	1.5086	0.1325	0.0055	0.2509	86.8105	0.0878	11498.39	57.54	AGM	57.74
AITR1392-ASU1-OHT1-B-MH2-CTD-4	11.4993	1.5088	0.1306	0.0054	0.2510	88.0722	0.0865	NT			
AITR1392-ASU1-OHT1-C-MH1-CTD-1	11.5000	1.5089	0.1305	0.0054	0.2511	88.1001	0.0865	11656.82	59.18	AGM	58.53
AITR1392-ASU1-OHT1-C-MH1-CTD-2	11.5004	1.5088	0.1276	0.0053	0.2512	90.1285	0.0846	11420.10	59.32	AGM	57.34
AITR1392-ASU1-OHT1-C-MH1-CTD-3	11.5016	1.5084	0.1272	0.0053	0.2511	90.3977	0.0843	11258.52	58.66	AGM	56.54
AITR1392-ASU1-OHT1-C-MH1-CTD-4	11.4930	1.5080	0.1300	0.0054	0.2511	88.4077	0.0862	NT			
AITR1392-ASU1-OHT1-C-MH2-CTD-1	11.5014	1.5082	0.1336	0.0056	0.2512	86.0668	0.0886	11218.61	55.66	AGM	56.35
AITR1392-ASU1-OHT1-C-MH2-CTD-2	11.5011	1.5085	0.1322	0.0055	0.2511	86.9758	0.0877	11112.52	55.71	AGM	55.81
AITR1392-ASU1-OHT1-C-MH2-CTD-3	11.5018	1.5088	0.1304	0.0054	0.2501	88.2265	0.0864	10839.77	55.11	AGM	54.43
AITR1392-ASU1-OHT1-C-MH2-CTD-4	11.5017	1.5083	0.1314	0.0055	0.2511	87.5320	0.0871	NT			
	11.4930	1.4997	0.1272	0.0053	0.2499	85.1322	0.0843	10839.7740	55.1077		54.4258
	11.5042	1.5095	0.1351	0.0056	0.2515	90.3977	0.0895	12033.9860	59.5134		60.3952
	11.5018	1.5076	0.1317	0.0055	0.2509	87.3800	0.0873	11442.9742	57.6472		57.4850
	0.0025	0.0023	0.0024	0.0001	0.0004	1.5862	0.0016	305.4455	1.3882		1.5091
	0.02	0.15	1.81	1.81	0.15	1.82	1.79	2.67	2.41		2.63
	24	24	24	24	24	24	24	18	18		18

Notes:

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

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	OHT1	MH	ETW

Test Group: AITR1392-ASU1-OHT1-MH-ETW

Material:

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	OHT2	MH	CTD

Test Group: AITR1392-ASU1-OHT2-MH-CTD

Material: Normalization: NA Cured Ply Thickness: 0.0055

Test Type: Open-Hole Tension Layup 2 Condition: CTD #Plies: 20

Test Method: MP1117 (ASTMD5766)

ACG, Inc.
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AITR1392-ASU1-OHT2-A-MH1-CTD-1	12.0056	1.5065	0.1102	0.0055	0.2514	108.9434	0.0732	7440.56	44.82	AGM		44.90
AITR1392-ASU1-OHT2-A-MH1-CTD-2	12.0060	1.5070	0.1098	0.0055	0.2503	109.3443	0.0729	7454.58	45.05	AGM		44.97
AITR1392-ASU1-OHT2-A-MH1-CTD-3	12.0058	1.5065	0.1116	0.0056	0.2502	107.5786	0.0741	7483.35	44.51	AGM		45.16
AITR1392-ASU1-OHT2-A-MH1-CTD-4	12.0058	1.5064	0.1111	0.0056	0.2504	108.0957	0.0737	NT				
AITR1392-ASU1-OHT2-A-MH2-CTD-1	12.0041	1.5073	0.1104	0.0055	0.2512	108.7003	0.0733	7133.65	42.86	AGM		43.02
AITR1392-ASU1-OHT2-A-MH2-CTD-2	12.0043	1.5073	0.1098	0.0055	0.2506	109.3620	0.0728	7461.56	45.10	AGM		45.00
AITR1392-ASU1-OHT2-A-MH2-CTD-3	11.9968	1.5071	0.1095	0.0055	0.2506	109.5929	0.0726	7560.45	45.83	AGM		45.61
AITR1392-ASU1-OHT2-A-MH2-CTD-4	12.0037	1.5068	0.1113	0.0056	0.2513	107.8826	0.0738	NT				
AITR1392-ASU1-OHT2-B-MH1-CTD-1	12.0048	1.5061	0.1062	0.0053	0.2511	113.0041	0.0705	6624.18	41.40	AGM		39.98
AITR1392-ASU1-OHT2-B-MH1-CTD-2	12.0043	1.5073	0.1073	0.0054	0.2508	111.8410	0.0712	6617.54	40.90	AGM		39.91
AITR1392-ASU1-OHT2-B-MH1-CTD-3	12.0047	1.5076	0.1063	0.0053	0.2509	112.9320	0.0705	6955.37	43.40	AGM		41.94
AITR1392-ASU1-OHT2-B-MH1-CTD-4	12.0052	1.5070	0.1054	0.0053	0.2513	113.9377	0.0699	NT				
AITR1392-ASU1-OHT2-B-MH2-CTD-1	12.0044	1.5072	0.1050	0.0053	0.2511	114.2917	0.0697	6838.75	43.20	AGM		41.25
AITR1392-ASU1-OHT2-B-MH2-CTD-2	12.0051	1.5079	0.1059	0.0053	0.2508	113.3629 0 Td	(0.0053)Tj	EMC 3BDC	5.847 0 Td	(AGM)Tj	.4878tTd	(0.0053)Tj 9D 710 >>

Input:	Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
	AITR	1392	ASU1	OHT2	MH	RTD

Test Group: AITR1392-ASU1-OHT2-MH-RTD

Material: MTM45-1/AS4-145-32%RW Normalization: NA Cured Ply Thickness: 0.0055

Test Type: Open-Hole Tension Layup 2 Condition: RTD #Plies: 20

Test Method: MP1117 (ASTMD5766)

ACG, Inc.
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Specimen ID	Length, in	Width, in	Thickness, in			Width/ Diameter	Diameter/ Thickness	Ultimate Load, lb		Failure Mode	Normalized
AITR1392-ASU1-OHT2-A-MH1-RTD-1	12.0053	1.5015	0.1103	0.0055	0.2509	108.8091	0.0735	6710.08	40.50	AGM	40.63
AITR1392-ASU1-OHT2-A-MH1-RTD-2	12.0061	1.5062	0.1102	0.0055	0.2501	108.9150	0.0732	6842.48	41.21	AGM	41.30
AITR1392-ASU1-OHT2-A-MH1-RTD-3	12.0057	1.5060	0.1111	0.0056	0.2514	108.0621	0.0738	6751.16	40.35	AGM	40.75
AITR1392-ASU1-OHT2-A-MH1-RTD-4					0.0000			NT			
AITR1392-ASU1-OHT2-A-MH2-RTD-1	12.0041	1.5073	0.1066	0.0053	0.2511	112.5736	0.0707	6864.09	42.71	AGM	41.40
AITR1392-ASU1-OHT2-A-MH2-RTD-2	12.0039	1.5066	0.1083	0.0054	0.2511	110.8390	0.0719	6762.10	41.44	AGM	40.80
AITR1392-ASU1-OHT2-A-MH2-RTD-3	12.0043	1.5069	0.1090	0.0055	0.2514	110.0975	0.0724	6876.82	41.85	AGM	41.49
AITR1392-ASU1-OHT2-A-MH2-RTD-4					0.0000			NT			
	12.0039	1.5015	0.1066	0.0053	0.0000	108.0621	0.0707	6710.0770	40.3496		40.6256
	12.0061	1.5073	0.1111	0.0056	0.2514	112.5736	0.0738	6876.8210	42.7052		41.4859
Average	12.0049	1.5058	0.1093	0.0055	0.1883	109.8827	0.0726	6801.1208	41.3444		41.0608
	0.0009	0.0021	0.0016	0.0001	0.1162	1.6496	0.0011	68.8659	0.8760		0.3744
	0.01	0.14	1.50	1.50	61.72	1.50	1.57	1.01	2.12		0.91
	6	6	6	6	8	6	6	6	6		6

Notes:

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

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	OHT3	MH	CTD

Test Group: AITR1392-ASU1-OHT3-MH-CTD

Material:

Test Type: Open-Hole Tension Layup 3

Test Method: MP1117 (ASTMD5766)

Normalization: NA

Condition: CTD

Cured Ply Thickness: 0.0055

#Plies: 20

ACG, Inc.
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AITR1392-ASU1-OHT3-A-MH1-CTD-1	12.0075	1.5096	0.1122	0.0056	0.2506	106.9869	0.0743	16135.22	95.24	LGM/SGM	97.17
AITR1392-ASU1-OHT3-A-MH1-CTD-2	12.0078	1.5097	0.1116	0.0056	0.2506	107.5646	0.0739	14128.80	83.84	LGM/SGM	85.08
AITR1392-ASU1-OHT3-A-MH1-CTD-3	12.0075	1.5095	0.1113	0.0056	0.2512	107.9164	0.0737	14835.09	88.33	LGM/SGM	89.34
AITR1392-ASU1-OHT3-A-MH1-CTD-4	12.0077	1.5082	0.1117	0.0056	0.2512	107.4672	0.0741	NT			
AITR1392-ASU1-OHT3-A-MH2-CTD-1	12.0047	1.5095	0.1142	0.0057	0.2511	105.1509	0.0756	15668.23	90.92	LGM/SGM	94.36
AITR1392-ASU1-OHT3-A-MH2-CTD-2	12.0052	1.5093	0.1123	0.0056	0.2505	106.8709	0.0744	15515.31	91.51	LGM/SGM	93.45
AITR1392-ASU1-OHT3-A-MH2-CTD-3	12.0049	1.5093	0.1141	0.0057	0.2511	105.2138	0.0756	14713.79	85.44	LGM/SGM	88.62
AITR1392-ASU1-OHT3-A-MH2-CTD-4	12.0054	1.5080	0.1131	0.0057	0.2512	106.1795	0.0750	NT			
AITR1392-ASU1-OHT3-B-MH1-CTD-1	12.0068										

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	OHT3	MH	ETW2

Test Group: AITR1392-ASU1-OHT3-MH-ETW2

Material:

Normalization: NA

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	OHC1	MH	RTD

Test Group: AITR1392-ASU1-OHC1-MH-RTD

Material: Normalization: NA Cured Ply Thickness: 0.0055

Test Type: Open-Hole Compression Layup 1 Condition: RTD #Plies: 24

Test Method: MP1119 (ASTMD6484)

ACG, Inc.
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						Hole Edge-Side (f)	Hole Edge-End (g)						
AITR1392-ASU1-OHC1-A-MH1-RTD-1	12.0050	1.5080	0.1338	0.0056	0.2503	0.6261	5.8685	6.0248	1.8702	9329.00	46.22	LGM	46.87
AITR1392-ASU1-OHC1-A-MH1-RTD-2	12.0047	1.5075	0.1357	0.0057	0.2511	0.6248	5.8685	6.0036	1.8500	9573.00	46.78	LGM	48.11
AITR1392-ASU1-OHC1-A-MH1-RTD-3	12.0049	1.5069	0.1338	0.0056	0.2511	0.6275	5.8695	6.0013	1.8767	8852.00	43.90	LGM	44.50

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	OHC1	MH	ETW2

Test Group: AITR1392-ASU1-OHC1-MH-ETW2

Material: Normalization: NA Cured Ply Thickness: 0.0055

Test Type: Open-Hole Compression Layup 1 Condition: ETW2 #Plies: 24

Test Method: MP1119 (ASTMD6484)

ACG, Inc.
Material & Process
Laboratory Report

						Hole Edge-Side (f)	Hole Edge-End (g)						
AITR1392-ASU1-OHC1-A-MH1-ETW2-1	12.0055	1.5073	0.1344	0.0056	0.2505	0.6271	5.866	6.0173	1.8638	7101.00	35.05	LGM	35.69
AITR1392-ASU1-OHC1-A-MH1-ETW2-2	12.0059	1.5073	0.1343	0.0056	0.2510	0.6286	5.8685	6.0053	1.8685	7120.00	35.16	LGM	35.78
AITR1392-ASU1-OHC1-A-MH1-ETW2-3	12.0059	1.5058	0.1340	0.0056	0.2510	0.6271	5.8695	5.9993	1.8736	7514.00	37.25	LGM	37.80
AITR1392-ASU1-OHC1-A-MH1-ETW2-4	12.0053	1.5072											

Input:

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	OHC3	MH	RTD

Test Group: AITR1392-ASU1-OHC3-MH-RTD

Material: MTM45-1/AS4-145-32%RW Normalization: NA Cured Ply Thickness: 0.0055

Test Type: Open-Hole Compression Layup 3 Condition: RTD #Plies: 20

Test Method: MP1119 (ASTMD6484)

ACG, Inc.
Material & Process
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Specimen ID	Length, in					Hole Edge-Side (f)	Hole Edge-End (g)	Width/ Diameter		Ultimate Load, lb		Failure Mode	
AITR1392-ASU1-OHC3-A-MH1-RTD-1	12.0067	1.5088	0.1113	0.0056	0.2507	0.6278	5.864	6.0182	2.2518	8386.00	49.92	LGM	50.53
AITR1392-ASU1-OHC3-A-MH1-RTD-2	12.0070	1.5090	0.1125	0.0056	0.2509	0.6281	5.8655	6.0142	2.2309	8860.00	52.21	LGM	53.38
AITR1392-ASU1-OHC3-A-MH1-RTD-3	12.0068	1.5086	0.1118	0.0056	0.2515	0.6277	5.8665	5.9984	2.2489	9031.00	53.53	MGM	54.42
AITR1392-ASU1-OHC3-A-MH1-RTD-4	12.0070	1.5075	0.1108	0.0055	0.2510	0.6218	5.8655	6.0058	2.2653	9168.00	54.89	MGM	55.29
AITR1392-ASU1-OHC3-A-MH2-RTD-1	12.0067	1.5076	0.1096	0.0055	0.2512	0.6271	5.868	6.0015	2.2927	9886.00	59.85	MGM	59.61
AITR1392-ASU1-OHC3-A-MH2-RTD-2	12.0070	1.5074	0.1101	0.0055	0.2512	0.6270	5.864	6.0008	2.2823	10259.00	61.83	MGM	61.87
AITR1392-ASU1-OHC3-A-MH2-RTD-3	12.0069	1.5079	0.1102	0.0055	0.2510	0.6276	5.8665	6.0074	2.2777	9501.00	57.18	MGM	57.28
AITR1392-ASU1-OHC3-A-MH2-RTD-4					0.0000					NT			

	12.0067	1.5074	0.1096	0.0055	0.0000	0.6218	5.8640	5.9984	2.2309	8386.0000	49.9238		50.5289
	12.0070	1.5090	0.1125	0.0056	0.2515	0.6281	5.8680	6.0182	2.2927	10259.0000	61.8331		61.8705
Average	12.0069	1.5081	0.1109	0.0055	0.2197	0.6267	5.8657	6.0066	2.2642	9298.7143	55.6300		56.0547
	0.0001	0.0007	0.0010	0.0001	0.0888	0.0022	0.0014	0.0073	0.0217	635.3801	4.2411		3.8504
	0.00	0.04	0.94	0.94	40.41	0.35	0.02	0.12	0.96	6.83	7.62		6.87
	7	7	7	7	8	7	7	7	7	7	7		7

Notes:

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

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	OHC3	MH	ETW2

Test Group: AITR1392-ASU1-OHC3-MH-ETW2

Material:

Test Type: Open-Hole Compression Layup 3

Normalization: NA

Condition: ETW2

Cured Ply Thickness: 0.0055

#Plies: 20

ACG, Inc.

Material & PI8c 0.011 Tw 8.52 -0 0 8.52 323.4 560.88 Tm [ait

Input:

Orientation
[45,0,-45,90]3S

MTM45-1/AS4-145-32%RW Normalization: Cured Ply Thickness: CTD

							Ultimate Strength, ksi		Modulus, Msi		Poisson's Ratio
		1.0090	0.1346	0.0056	14480.00	AWT	106.648	108.722	7.36	7.500	NT
AITR1392-ASU1-UNT1-A-MH1-CTD-2	10.036	1.0089	0.1338	0.0056	15680.00	AGM	116.156	117.740	7.42	7.522	NT
AITR1392-ASU1-UNT1-A-MH1-CTD-3	10.044	1.0086	0.1340	0.0056	14939.00	AGT	110.534	112.209	7.41	7.523	NT
AITR1392-ASU1-UNT1-A-MH1-CTD-4	10.033	1.0094	0.1350	0.0056	NT				NT		NT
AITR1392-ASU1-UNT1-A-MH2-CTD-1	10.045	1.0091	0.1355	0.0056	15369.00	AWT	112.402	115.382	6.97	7.154	NT
AITR1392-ASU1-UNT1-A-MH2-CTD-2	10.054	1.0089	0.1346	0.0056	15281.00	AWT/AWB	112.555	114.744	6.63	6.763	NT
AITR1392-ASU1-UNT1-A-MH2-CTD-3	10.061	1.0081	0.1352	0.0056	15630.00	AGB	114.706	117.458	6.88	7.044	NT
AITR1392-ASU1-UNT1-A-MH2-CTD-4	10.062	1.0079	0.1358	0.0057	NT				NT		NT
AITR1392-ASU1-UNT1-B-MH1-CTD-1	10.057	1.0091	0.1335	0.0056	14701.00	AWB	109.100	110.367	6.36	6.435	NT
AITR1392-ASU1-UNT1-B-MH1-CTD-2	10.058	1.0092	0.1326	0.0055	15161.00	AGB	113.269	113.813	6.92	6.952	NT
AITR1392-ASU1-UNT1-B-MH1-CTD-3	10.058	1.0082	0.1322	0.0055	15400.00	AGT	115.576	115.722	7.51	7.520	NT
AITR1392-ASU1-UNT1-B-MH1-CTD-4	10.060	1.0080	0.1311	0.0055	NT				NT		NT
AITR1392-ASU1-UNT1-B-MH2-CTD-1	10.057	1.0091	0.1365	0.0057	14488.00	AWT	105.153	108.764	6.93	7.164	NT
AITR1392-ASU1-UNT1-B-MH2-CTD-2	10.049	1.0067	0.1390	0.0058	15109.00	AGB	107.971	113.697	7.44	7.830	NT
AITR1392-ASU1-UNT1-B-MH2-CTD-3	10.059	1.0079	0.1368	0.0057	14876.00	AWT	107.864	111.814	6.64	6.878	NT
AITR1392-ASU1-UNT1-B-MH2-CTD-4	10.058	1.0083	0.1364	0.0057	NT				NT		NT
AITR1392-ASU1-UNT1-C-MH1-CTD-1	10.066	1.0073	0.1298	0.0054	15460.00	AWT	118.213	116.272	7.82	7.687	NT
AITR1392-ASU1-UNT1-C-MH1-CTD-2	10.062	1.0080	0.1288	0.0054	14769.00	AGM	113.752	110.995	8.34	8.135	NT
AITR1392-ASU1-UNT1-C-MH1-CTD-3	10.064	1.0073	0.1290	0.0054	14651.00	AGM	112.725	110.192	7.12	6.959	NT
AITR1392-ASU1-UNT1-C-MH1-CTD-4	10.061	1.0073	0.1300	0.0054	NT				NT		NT
AITR1392-ASU1-UNT1-C-MH2-CTD-1	10.064	1.0077	0.1305	0.0054	14605.00	AGM	111.061	109.798	7.33	7.250	NT
AITR1392-ASU1-UNT1-C-MH2-CTD-2	10.060	1.0072	0.1306	0.0054	15503.00	AWT/AWB	117.827	116.607	7.72	7.643	NT
AITR1392-ASU1-UNT1-C-MH2-CTD-3	10.065	1.0081	0.1297	0.0054	14911.00	AWT	114.045	112.058	7.61	7.476	NT
AITR1392-ASU1-UNT1-C-MH2-CTD-4	10.067	1.0072	0.1296	0.0054	NT				NT		NT
Minimum	10.0333	1.0067	0.1288	0.0054	14480.00		105.153	108.722	6.361	6.435	
	10.0666	1.0094	0.1390	0.0058	15680.00		118.213	117.740	8.337	8.135	
	10.0556	1.0082	0.1331	0.0055	15056.28		112.198	113.131	7.244	7.302	
	0.0101	0.0008	0.0029	0.0001	395.56		3.753	2.983	0.487	0.422	
	0.10	0.08	2.19	2.19	2.63		3.34	2.64	6.72	5.78	
	24	24	24	24	18		18	18	18	18	

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

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	UNT1	MH	RTD

Test Group: AITR1392-ASU1-UNT1-MH-RTD

Material: 0.0055 #Plies: 24

ACG, Inc.
Material & Process
Laboratory Report

Test Type: Quasi Unnotched Tensile Condition:

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

							Measured	Normalized	Measured	Normalized	
AITR1392-ASU1-UNT1-A-MH1-RTD-1	10.037	1.0086	0.1342	0.0056	14195.00	LWT	104.903	106.624	6.81	6.926	NT
AITR1392-ASU1-UNT1-A-MH1-RTD-2	10.037	1.0076	0.1342	0.0056	12716.00	AWT	94.043	95.610	7.05	7.168	NT
AITR1392-ASU1-UNT1-A-MH1-RTD-3	10.035	1.0078	0.1343	0.0056	14040.00	AGT/LWB	103.711	105.544	7.01	7.131	NT
AITR1392-ASU1-UNT1-A-MH1-RTD-4	10.040	1.0083	0.1347	0.0056	15251.00	AWB	112.294	114.591	7.05	7.189	NT
AITR1392-ASU1-UNT1-A-MH2-RTD-1	10.058	1.0088	0.1357	0.0057	14537.00	AWB	106.165	109.168	6.90	7.091	NT
AITR1392-ASU1-UNT1-A-MH2-RTD-2	10.059	1.0089	0.1344	0.0056	15152.00	AGM	111.720	113.779	6.95	7.082	NT
AITR1392-ASU1-UNT1-A-MH2-RTD-3	10.058	1.0081	0.1347	0.0056	14597.00	AWT	107.519	109.691	7.09	7.235	NT
AITR1392-ASU1-UNT1-A-MH2-RTD-4	10.061	1.0083	0.1361	0.0057	15060.00	AGM/DWT	109.770	113.152	6.70	6.902	NT
AITR1392-ASU1-UNT1-B-MH1-RTD-1	10.059	1.0088	0.1325	0.0055	14940.00	AGB	111.747	112.198	6.84	6.872	NT
AITR1392-ASU1-UNT1-B-MH1-RTD-2	10.060	1.0085	0.1332	0.0056	14407.00	AGM	107.222	108.224	7.00	7.069	NT
AITR1392-ASU1-UNT1-B-MH1-RTD-3	10.058	1.0069	0.1329	0.0055	14249.00	AGB/DGB/LWT	106.455	107.207	6.77	6.819	NT
AITR1392-ASU1-UNT1-B-MH1-RTD-4	10.060	1.0077	0.1322	0.0055	15072.00	AGM/AWT/AWE	113.163	113.306	7.00	7.011	NT
AITR1392-ASU1-UNT1-B-MH2-RTD-1	10.053	1.0091	0.1362	0.0057	15193.00	AGM	110.516	114.061	6.80	7.018	NT
AITR1392-ASU1-UNT1-B-MH2-RTD-2	10.058	1.0088	0.1371	0.0057	15090.00	AWT	109.128	113.317	6.74	7.002	NT

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	UNT1	MH	ETW2

Test Group: AITR1392-ASU1-UNT1-MH-ETW2

Material: 0.0055 #Plies: 24 **ACG, Inc.**

Test Type: Quasi Unnotched Tensile Condition: **Material & Process**

Test Method:

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	UNT2	MH	CTD

Test Group: AITR1392-ASU1-UNT2-MH-CTD

Material:

Input:	Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition	Orientation
	AITR	1392	ASU1	UNT2	MH	RTD	[45,-45,0,45,-45,90,45,-45,45,-45]S

Test Group: AITR1392-ASU1-UNT2-MH-RTD

Material: MTM45-1/AS4-145-32%RW Normalization: Cured Ply Thickness: 0.0055 #Plies: 20

Test Type: Soft Unnotched Tensile Condition: RTD

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

ACG, Inc.
Material & Process
Laboratory Report

Specimen ID	Length, in.	Width, in.	Thickness, in.	Cured Ply Thickness:	Ultimate Load, lb.	Failure Mode	Ultimate Strength, ksi		Modulus, Msi		Poisson's Ratio
							Measured	Normalized	Measured	Normalized	
AITR1392-ASU1-UNT2-A-MH1-RTD-1	10.064	1.0032	0.1143	0.0057	7018.00	DGT	61.202	63.594	4.10	4.255	NT
AITR1392-ASU1-UNT2-A-MH1-RTD-2	10.065	1.0031	0.1138	0.0057	6833.00	DWT	59.841	61.926	4.19	4.334	NT
AITR1392-ASU1-UNT2-A-MH1-RTD-3	10.056	1.0027	0.1142	0.0057	6982.00	DWT	60.994	63.304	4.12	4.277	NT
AITR1392-ASU1-UNT2-A-MH1-RTD-4	10.060	1.0014	0.1139	0.0057	NT				NT		NT
AITR1392-ASU1-UNT2-A-MH2-RTD-1	10.041	1.0070	0.1117	0.0056	7365.00	DGB	65.477	66.489	4.30	4.362	NT
AITR1392-ASU1-UNT2-A-MH2-RTD-2	10.039	1.0060	0.1112	0.0056	6967.00	DGT	62.263	62.961	4.37	4.415	NT
AITR1392-ASU1-UNT2-A-MH2-RTD-3	10.030	1.0060	0.1115	0.0056	7286.00	DGB	64.956	65.841	4.37	4.427	NT
AITR1392-ASU1-UNT2-A-MH2-RTD-4	10.042	1.0064	0.1114	0.0056	NT				NT		NT
Minimum	10.0295	1.0014	0.1112	0.0056	6833.00		59.841	61.926	4.095	4.255	
	10.0653	1.0070	0.1143	0.0057	7365.00		65.477	66.489	4.367	4.427	
	10.0495	1.0045	0.1128	0.0056	7075.17		62.455	64.019	4.239	4.345	
	0.0133	0.0021	0.0014	0.0001	205.30		2.279	1.767	0.121	0.070	
	0.13	0.21	1.24	1.24	2.90		3.65	2.76	2.85	1.62	
No. Specimens	8	8	8	8	6		6	6	6	6	

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

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	UNT2	MH	ETW2

Test Group: AITR1392-ASU1-UNT2-MH-ETW2

Material: 0.0055 #Plies: 20 **ACG, Inc.**

Test Type: Soft Unnotched Tensile Condition: **Material & Process**

Test Method -0.001 Tc r010.0[(MaA)-5(I)3(T)-3(R)-5(1392-)432 Tm [(0.)11((MC /P <</MCID 86 >>BDC BT /TT1 1 Tf -0.004 Tc -0.003 Tc 0.003 Tw 10.08 711W n(80rg f EMC BT /P <</t2 94

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	UNT3	MH	RTD

Test Group: AITR1392-ASU1-UNT3-MH-RTD

Input:	Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition	Orientation			
	AITR	1392	ASU1	UNT3	MH	ETW2	[0,0,45,0,90,-45,0,45,0,-45]S			

Test Group: AITR1392-ASU1-UNT3-MH-ETW2

Material: MTM45-1/AS4-145-32%RW Normalization: Cured Ply Thickness: 0.0055 #Plies: 20

Test Type: Hard Unnotched Tensile Condition: ETW2

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

ACG, Inc.
Material & Process
Laboratory Report

Specimen ID	Length, in.	Width, in.	Thickness, in.	Cured Ply Thickness:	Ultimate Load, lb.	Failure Mode	Ultimate Strength, ksi		Modulus, Msi		Poisson's Ratio
							Measured	Normalized	Measured	Normalized	
AITR1392-ASU1-UNT3-A-MH1-ETW2-1	10.066	1.0086	0.1132	0.0057	16016.00	DWB/DAT	140.314	144.354	12.86	13.231	NT
AITR1392-ASU1-UNT3-A-MH1-ETW2-2	10.069	1.0083	0.1123	0.0056	16931.00	DAT/DAB	149.475	152.646	GE		NT
AITR1392-ASU1-UNT3-A-MH1-ETW2-3	10.068	1.0081	0.1131	0.0057	16341.00	DGM/DWT	143.280	147.361	12.47	12.820	NT
AITR1392-ASU1-UNT3-A-MH1-ETW2-4	10.064	1.0088	0.1125	0.0056	NT				NT		NT
AITR1392-ASU1-UNT3-A-MH2-ETW2-1	10.002	1.0114	0.1138	0.0057	16635.00	DMV	144.577	149.528	12.35	12.772	NT
AITR1392-ASU1-UNT3-A-MH2-ETW2-2	10.045	1.0112	0.1142	0.0057	16132.00	DAT/DWB	139.660	145.035	12.51	12.992	NT
AITR1392-ASU1-UNT3-A-MH2-ETW2-3	10.034	1.0114	0.1115	0.0056	16858.00	DMV	149.528	151.522	GE		NT
AITR1392-ASU1-UNT3-A-MH2-ETW2-4	10.039	1.0118	0.1113	0.0056	NT				NT		NT
Minimum	10.0018	1.0081	0.1113	0.0056	16016.00		139.660	144.354	12.349	12.772	
Maximum	10.0694	1.0118	0.1142	0.0057	16931.00		149.528	152.646	12.861	13.231	
Average	10.0482	1.0100	0.1127	0.0056	16485.50		144.473	148.408	12.547	12.954	
Standard Deviation	0.0235	0.0016	0.0010	0.0001	381.01		4.301	3.401	0.220	0.208	
Coefficient of Variation (%)	0.23	0.16	0.91	0.91	2.31		2.98	2.29	1.76	1.60	
No. Specimens	8	8	8	8	6		6	6	4	4	

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

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	UNC1	MH	RTD

Test Group: AITR1392-ASU1-UNC1-MH-RTD

Material: 0.0055 #Plies: 24

ACG, Inc.
Material & Process
Laboratory Report

Test Type: Quasi Unnotched Compression Condition:

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

							Measured	Normalized	Measured	Normalized
AITR1392-ASU1-UNC1-A-MH1-RTD-1	5.504	0.5073	0.1351	0.0056	5725.00	BGT/BAT	83.538	85.500	NT	

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	UNC1	MH	ETW

Test Group: AITR1392-ASU1-UNC1-MH-ETW

Material: 0.0055 #Plies: 24

Test Type: Quasi Unnotched Compression Condition:

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

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							Measured	Normalized	Measured	Normalized	
AITR1392-ASU1-UNC1-A-MH1-ETW-1	5.506	0.5065	0.1346	0.0056	4459.00	BGM	65.401	66.689	7.22	7.364	0.360
AITR1392-ASU1-UNC1-A-MH1-ETW-2	5.505	0.5066	0.1340	0.0056	4161.00	BGM	61.315	62.228	GE		0.446
AITR1392-ASU1-UNC1-A-MH1-ETW-3	5.506	0.5073	0.1350	0.0056	4430.00	BGM	64.681	66.151	6.75	6.904	0.337
AITR1392-ASU1-UNC1-A-MH1-ETW-4	5.502	0.5069	0.1353	0.0056	4208.00	BGM	61.341	62.890	6.45	6.614	0.330
AITR1392-ASU1-UNC1-A-MH2-ETW-1	5.503	0.5072	0.1342	0.0056	4117.00	BGM	60.500	61.493	6.79	6.906	0.335
AITR1392-ASU1-UNC1-A-MH2-ETW-2	5.503	0.5065	0.1348	0.0056	4346.00	BGM	63.649	64.999	6.53	6.665	0.310
AITR1392-ASU1-UNC1-A-MH2-ETW-3	5.504	0.5067	0.1347	0.0056	4114.00	BGM	60.276	61.509	6.64	6.777	0.319
AITR1392-ASU1-UNC1-A-MH2-ETW-4	5.504	0.5067	0.1345	0.0056	4387.00	BGM	64.367	65.586	6.65	6.774	0.346
	5.5021	0.5065	0.1340	0.0056	4114.00		60.276	61.493	6.451	6.614	0.3100
	5.5061	0.5073	0.1353	0.0056	4459.00		65.401	66.689	7.222	7.364	0.4460
	5.5041	0.5068	0.1346	0.0056	4277.75		62.691	63.943	6.719	6.858	0.3479
	0.0014	0.0003	0.0004	0.0000	143.32		2.049	2.145	0.251	0.249	0.0425
	0.03	0.06	0.32	0.32	3.35		3.27	3.35	3.74	3.63	12.22
	8	8	8	8	8		8	8	7	7	8

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	UNC2	MH	RTD

Test Group: AITR1392-ASU1-UNC2-MH-RTD

Material: 0.0055 #Plies: 20

ACG, Inc.
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Laboratory Report

Test Type: Soft Unnotched Compression Condition:

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

	Measured	Normalized	Measured	Normalized
AITR1392-ASU1-UNC2-A-MH1-RTD-1	5.506	0.5073		

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	UNC2	MH	ETW2

Test Group: AITR1392-ASU1-UNC2-MH-ETW2

Material: 0.0055 #Plies: 20

Test Type: Soft Unnotched Compression Condition:

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

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							Measured	Normalized	Measured	Normalized	
AITR1392-ASU1-UNC2-A-MH1-ETW2-1	5.505	0.5076	0.1127	0.0056	2475.00	EGM	43.267	44.329	4.02	4.119	0.542
AITR1392-ASU1-UNC2-A-MH1-ETW2-2	5.507	0.5071	0.1133	0.0057	2317.00	EGM	40.337	41.535	4.04	4.159	0.577
AITR1392-ASU1-UNC2-A-MH1-ETW2-3	5.507	0.5074	0.1124	0.0056	2409.00	EGM	42.230	43.164	3.87	3.956	0.575
AITR1392-ASU1-UNC2-A-MH1-ETW2-4	5.505	0.5075	0.1120	0.0056	NT				NT		NT
AITR1392-ASU1-UNC2-A-MH2-ETW2-1	5.507	0.5072	0.1122	0.0056	2539.00	EGM	44.616	45.508	3.92	4.000	0.537
AITR1392-ASU1-UNC2-A-MH2-ETW2-2	5.506	0.5081	0.1150	0.0057	2610.00	EGM	44.678	46.695	4.33	4.529	0.533
AITR1392-ASU1-UNC2-A-MH2-ETW2-3	5.505	0.5079	0.1139	0.0057	2481.00	EGM	42.897	44.405	4.29	4.441	0.580
AITR1392-ASU1-UNC2-A-MH2-ETW2-4	5.505	0.5082	0.1142	0.0057	NT				NT		NT
	5.5047	0.5071	0.1120	0.0056	2317.00		40.337	41.535	3.870	3.956	0.5330
	5.5066	0.5082	0.1150	0.0057	2610.00		44.678	46.695	4.333	4.529	0.5800
	5.5057	0.5076	0.1132	0.0057	2471.83		43.004	44.273	4.079	4.201	0.5573
	0.0008	0.0004	0.0011	0.0001	101.60		1.624	1.797	0.191	0.234	0.0222
	0.01	0.08	0.94	0.94	4.11		3.78	4.06	4.68	5.57	3.97
	8	8	8	8	6		6	6	68		

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	UNC3	MH	RTD

Test Group: AITR1392-ASU1-UNC3-MH-RTD

Material: 0.0055 #Plies: 20

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Material & Process
Laboratory Report

Test Type: Hard Unnotched Compression Condition:

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

							Measured	Normalized	Measured	Normalized	
AITR1392-ASU1-UNC3-A-MH1-RTD-1	5.504	0.5071	0.1084	0.0054	5197.00	BGM	94.522	93.162	9.34	9.202	0.389
AITR1392-ASU1-UNC3-A-MH1-RTD-2	5.505	0.5078	0.1107	0.0055	5416.00	BGT	96.368	96.967	9.65	9.712	0.391
AITR1392-ASU1-UNC3-A-MH1-RTD-3	5.504										

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	UNC3	MH	ETW2

Test Group: AITR1392-ASU1-UNC3-MH-ETW2

Material: 0.0055 #Plies: 20 **ACG, Inc.**

Test Type: Hard Unnotched Compression Condition: **Material & Process**

Test Method:

Input:	Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition	
	AITR	1392	ASU1	SBS1	MH	RTD	

Test Group: AITR1392-ASU1-SBS1-MH-RTD

Material: **MTM45-1/AS4-145-32%RW** Normalization: Cured Ply Thickness: 0.0055

Test Type: Quasi Short Beam Shear Condition: RTD #Plies: 24

Test Method: MP1116 (ASTMD2344) Span (4t): 0.52

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Specimen ID	Length, in.	Width, in.	Thickness, in.	Cured Ply Thickness:	Ultimate Load, lb.	Failure Mode	Strength, ksi	
							Measured	Normalized
AITR1392-ASU1-SBS1-A-MH1-RTD-1	0.789	0.2490	0.1321	0.0055	500.00	ILS	11.404	11.409
AITR1392-ASU1-SBS1-A-MH1-RTD-2	0.789	0.2495	0.1327	0.0055	507.00	ILS	11.485	11.546
AITR1392-ASU1-SBS1-A-MH1-RTD-3	0.787	0.2510	0.1327	0.0055	477.00	ILS	10.738	10.798
AITR1392-ASU1-SBS1-B-MH1-RTD-1	0.787	0.2545	0.1307	0.0054	445.00	ILS	10.036	9.935
AITR1392-ASU1-SBS1-B-MH1-RTD-2	0.786	0.2550	0.1313	0.0055	427.00	ILS	9.565	9.514
AITR1392-ASU1-SBS1-B-MH1-RTD-3	0.782	0.2555	0.1310	0.0055	428.00	ILS	9.593	9.518
AITR1392-ASU1-SBS1-B-MH1-RTD-4	0.786	0.2555	0.1299	0.0054	NT			
AITR1392-ASU1-SBS1-B-MH2-RTD-1	0.785	0.2535	0.1269	0.0053	418.00	ILS	9.748	9.369
AITR1392-ASU1-SBS1-B-MH2-RTD-2	0.786	0.2570	0.1297	0.0054	438.00	ILS	9.858	9.683
AITR1392-ASU1-SBS1-B-MH2-RTD-3	0.787	0.2555	0.1275	0.0053	417.00	ILS	9.601	9.273
AITR1392-ASU1-SBS1-B-MH2-RTD-4	0.786	0.2560	0.1278	0.0053	NT			
AITR1392-ASU1-SBS1-C-MH1-RTD-1	0.789	0.2470	0.1285	0.0054	394.00	ILS	9.313	9.063
AITR1392-ASU1-SBS1-C-MH1-RTD-2	0.790	0.2485	0.1291	0.0054	383.00	ILS	8.954	8.757
AITR1392-ASU1-SBS1-C-MH1-RTD-3	0.787	0.2490	0.1282	0.0053	374.00	ILS	8.785	8.534
AITR1392-ASU1-SBS1-C-MH1-RTD-4	0.788	0.2495	0.1277	0.0053	NT			
AITR1392-ASU1-SBS1-C-MH2-RTD-1	0.787	0.2490	0.1276	0.0053	456.00	ILS	10.764	10.405
AITR1392-ASU1-SBS1-C-MH2-RTD-2	0.788	0.2482	0.1268	0.0053	447.00	ILS	10.657	10.234
AITR1392-ASU1-SBS1-C-MH2-RTD-3	0.790	0.2490	0.1280	0.0053	460.00	ILS	10.827	10.497
AITR1392-ASU1-SBS1-C-MH2-RTD-4	0.790	0.2480	0.1275	0.0053	NT			
Minimum	0.7815	0.2470	0.1268	0.0053	374.00		8.785	8.534
Maximum	0.7915	0.2570	0.1329	0.0055	507.00		11.485	11.546
Average	0.7879	0.2512	0.1299	0.0054	447.39		10.277	10.126
Standard Deviation	0.0023	0.0031	0.0022	0.0001	41.32		0.880	0.967
Coefficient of Variation (%)	0.29	1.25	1.70	1.70	9.24		8.56	9.55
No. Specimens	24	24	24	24	18		18	18

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

Input:	Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition	Orientation
	AITR	1392	ASU1	SBS1	MH	ETW	[45,0,-45,90]3S

Test Group: AITR1392-ASU1-SBS1-MH-ETW

Material: **MTM45-1/AS4-145-32%RW** Normalization: Cured Ply Thickness: 0.0055

Test Type: Quasi Short Beam Shear Condition: ETW #Plies: 24

Test Method: MP1116 (ASTMD2344) Span (4t): 0.54

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Specimen ID	Length, in.	Width, in.	Thickness, in.	Cured Ply Thickness:	Ultimate Load, lb.	Failure Mode	Ultimate Strength, ksi	
							Measured	Normalized
AITR1392-ASU1-SBS1-A-MH1-ETW-1	0.788	0.2487	0.1344	0.0056	279.00	ILS	6.260	6.375
AITR1392-ASU1-SBS1-A-MH1-ETW-2	0.789	0.2480	0.1342	0.0056	286.00	ILS	6.443	6.552
AITR1392-ASU1-SBS1-A-MH1-ETW-3	0.788	0.2490	0.1351	0.0056	295.00	ILS	6.579	6.731
AITR1392-ASU1-SBS1-A-MH1-ETW-4	0.787	0.2490	0.1356	0.0056	NT			
AITR1392-ASU1-SBS1-A-MH2-ETW-1	0.789	0.2485	0.1344	0.0056	293.00	ILS	6.578	6.699
AITR1392-ASU1-SBS1-A-MH2-ETW-2	0.790	0.2495	0.1342	0.0056	297.00	ILS	6.653	6.764
AITR1392-ASU1-SBS1-A-MH2-ETW-3	0.792	0.2490	0.1333	0.0056	287.00	ILS	6.485	6.549
AITR1392-ASU1-SBS1-A-MH2-ETW-4	0.789	0.2505	0.1336	0.0056	NT			
Minimum	0.7870	0.2480	0.1333	0.0056	279.00		6.260	6.375
Maximum	0.7920	0.2505	0.1356	0.0056	297.00		6.653	6.764
Average	0.7888	0.2490	0.1344	0.0056	289.50		6.500	6.612
Standard Deviation	0.0015	0.0007	0.0007	0.0000	6.75		0.139	0.147
Coefficient of Variation (%)	0.19	0.30	0.54	0.54	2.33		2.14	2.23
No. Specimens	8	8	8	8	6		6	6

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

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	SBS1	MH	ETW2

Test Group: AITR1392-ASU1-SBS1-MH-ETW2

Material: Normalization: Cured Ply Thickness: 0.0055 **ACG, Inc.**

Input:	Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
	AITR	1392	ASU1	FHT1	MH	CTD

Test Group: AITR1392-ASU1-FHT1-MH-CTD

Material: MTM45-1/AS4-145-32%RW Normalization: NA Cured Ply Thickness: 0.0055

Test Type: Filled-Hole Tension Layup 1 Condition: CTD #Plies: 24

Test Method: MP1118 (ASTMD6742)

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		Width, in	Thickness, in	Cured Ply Thickness:	Diameter	Width/ Diameter	Diameter/ Thickness		Ultimate Strength, ksi		**Normalized** Ultimate Strength, ksi
AITR1392-ASU1-FHT1-A-MH1-CTD-1	12.0055	1.4998	0.1348	0.0056	0.2510	89.0393	0.0899	NT			
AITR1392-ASU1-FHT1-A-MH1-CTD-2	12.0054	1.5059	0.1352	0.0056	0.2511	88.7976	0.0898	12489.22	61.34	AGM	62.83
AITR1392-ASU1-FHT1-A-MH1-CTD-3	12.0054	1.5066	0.1357	0.0057	0.2509	88.4919	0.0900	11624.17	56.87	AGM	58.45
AITR1392-ASU1-FHT1-A-MH1-CTD-4	12.0051	1.5067	0.1346	0.0056	0.2512	89.2130	0.0893	11300.06	55.73	AGM	56.82
AITR1392-ASU1-FHT1-A-MH2-CTD-1	12.0074	1.5080	0.1347	0.0056	0.2513	89.1639	0.0893	12225.05	60.20	AGM	61.42
AITR1392-ASU1-FHT1-A-MH2-CTD-2	12.0029	1.5088	0.1338	0.0056	0.2508	89.7078	0.0887	11793.12	58.42	AGM	59.21
AITR1392-ASU1-FHT1-A-MH2-CTD-3	12.0074	1.5093	0.1343	0.0056	0.2512	89.5495	0.0879	11506.99	57.51	AGM	57.77
AITR1392-ASU1-FHT1-B-MH2-CTD-2	12.0068	1.5091	0.1325	0.0055	0.2514	90.6399	0.0878	11435.44	57.21	AGM	57.41
AITR1392-ASU1-FHT1-B-MH2-CTD-3	12.0068	1.5088	0.1337	0.0056	0.2503	89.7814	0.0886	11465.78	56.82	AGM	57.57
AITR1392-ASU1-FHT1-B-MH2-CTD-4	12.0068	1.5092	0.1316	0.0055	0.2511	91.2142	0.0872	NT			
AITR1392-ASU1-FHT1-C-MH1-CTD-1	12.0053	1.5071	0.1287	0.0054	0.2511	93.3054	0.0854	11386.59	58.72	AGM	57.24
AITR1392-ASU1-FHT1-C-MH1-CTD-2	12.0050	1.5068	0.1298	0.0054	0.2512	92.4884	0.0861	11399.18	58.28	AGM	57.31
AITR1392-ASU1-FHT1-C-MH1-CTD-3	12.0051	1.5075	0.1294	0.0054	0.2513	92.7988	0.0858	11951.58	61.29	AGM	60.06
AITR1392-ASU1-FHT1-C-MH1-CTD-4	12.0054	1.5074	0.1302	0.0054	0.2507	92.1838	0.0864	NT			
AITR1392-ASU1-FHT1-C-MH2-CTD-1	12.0055	1.5076	0.1293	0.0054	0.2506	92.8736	0.0857	11858.90	60.85	AGM	59.59
AITR1392-ASU1-FHT1-C-MH2-CTD-2	12.0057	1.5077	0.1305	0.0054	0.2510	91.9745	0.0866	11011.27	55.95	AGM	55.33
AITR1392-ASU1-FHT1-C-MH2-CTD-3	12.0051	1.5073	0.1292	0.0054	0.2505	92.8945	0.0857	11916.37	61.17	AGM	59.89
AITR1392-ASU1-FHT1-C-MH2-CTD-4	12.0050	1.5080	0.1289	0.0054	0.2512	93.1583	0.0855	NT			
	11.9941	1.4979	0.1287	0.0054	0.2503	88.4919	0.0854	11011.2710	55.7347		55.3285
	12.0080	1.5093	0.1357	0.0057	0.2514	93.3054	0.0900	12489.2190	61.3413		62.8283
	12.0054	1.5070	0.1324	0.0055	0.2510	90.6950	0.0879	11685.0502	58.5150		58.7131
	0.0027	0.0027	0.0023	0.0001	0.0003	1.5837	0.0016	356.9457	1.8239		1.8014
	0.02	0.18	1.73	1.73	0.11	1.75	1.78	3.05	3.12		3.07
	24	24	24	24	24	24	24	18	18		18
Minimum											
Maximum											
Average											
Standard Deviation											
Coefficient of Variation (%)											
No. Specimens											

Notes:

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

Input:	Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition				
	AITR	1392	ASU1	FHT1	MH	RTD				

Test Group: AITR1392-ASU1-FHT1-MH-RTD

Material: **MTM45-1/AS4-145-32%RW** Normalization: NA Cured Ply Thickness: 0.0055

Test Type: Filled-Hole Tension Layup 1 Condition: RTD #Plies: 24

Test Method: MP1118 (ASTMD6742)

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Specimen ID	Length, in	Width, in	Thickness, in	Cured Ply Thickness:	Diameter	Width/ Diameter	Diameter/ Thickness	Ultimate Load, lb	Ultimate Strength, ksi	Failure Mode	**Normalized** Ultimate Strength, ksi
AITR1392-ASU1-FHT1-A-MH1-RTD-1	12.0052	1.5068	0.1343	0.0056	0.2508	89.4131	0.0891	12038.06	59.50	AGM	60.53
AITR1392-ASU1-FHT1-A-MH1-RTD-2	12.0053	1.5060	0.1362	0.0057	0.2510	88.1444	0.0904	12214.61	59.55	AGM	61.44
AITR1392-ASU1-FHT1-A-MH1-RTD-3	12.0054	1.5062	0.1342	0.0056	0.2513	89.4366	0.0891	12393.62	61.30	AGM	62.34
AITR1392-ASU1-FHT1-A-MH1-RTD-4	11.9946	1.5053	0.1352	0.0056	0.2509	88.7172	0.0898	NT			
AITR1392-ASU1-FHT1-A-MH2-RTD-1	12.0075	1.5094	0.1330	0.0055	0.2513	90.2593	0.0881	11983.08	59.68	AGM	60.14
AITR1392-ASU1-FHT1-A-MH2-RTD-2	12.0072	1.5019	0.1328	0.0055	0.2511	90.4154	0.0884	11959.56	59.96	AGM	60.33
AITR1392-ASU1-FHT1-A-MH2-RTD-3	11.9992	1.5092	0.1334	0.0056	0.2512	89.9493	0.0884	11804.59	58.63	AGM	59.26
AITR1392-ASU1-FHT1-A-MH2-RTD-4	12.0075	1.4952	0.1330	0.0055	0.2506	90.2593	0.0890	NT			
Minimum	11.9946	1.4952	0.1328	0.0055	0.2506	88.1444	0.0881	11804.5860	58.6338		59.2557
Maximum	12.0075	1.5094	0.1362	0.0057	0.2513	90.4154	0.0904	12393.6240	61.2993		62.3364
Average	12.0040	1.5050	0.1340	0.0056	0.2510	89.5743	0.0891	12065.5863	59.7705		60.6715
Standard Deviation	0.0046	0.0046	0.0012	0.0000	0.0002	0.8116	0.0008	208.2030	0.8712		1.0765
Coefficient of Variation (%)	0.04	0.31	0.89	0.89	0.10	0.91	0.87	1.73	1.46		1.77
No. Specimens	8	8	8	8	8	8	8	6	6		6

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

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	FHT2	MH	CTD

Test Group: AITR1392-ASU1-FHT2-MH-CTD

Material:

Normalization: NA

Cured Ply Thickness: 0.0055

Test Type: Filled-Hole Tension Layup 2

Condition: CTD

#Plies: 20

Test Method: MP1118 (ASTMD6742)

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AITR1392-ASU1-FHT2-A-MH1-CTD-1	11.5060	1.5014	0.1112	0.0056	0.2509	103.4712	0.0741	7447.33	44.61	AGM	45.09
AITR1392-ASU1-FHT2-A-MH1-CTD-2	11.5020	1.5064	0.1106	0.0055	0.2514	104.0277	0.0734	7312.92	43.91	AGM	44.13
AITR1392-ASU1-FHT2-A-MH1-CTD-3	11.4980	1.5080	0.1116	0.0056	0.2513	103.0595	0.074-		44.6		

44.13

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	FHT3	MH	CTD

Test Group: AITR1392-ASU1-FHT3-MH-CTD

Material:

Normalization: NA

Cured Ply Thickness: 0.0055

Input:	Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition				
	AITR	1392	ASU1	FHT3	MH	RTD				

Test Group: AITR1392-ASU1-FHT3-MH-RTD

Material: **MTM45-1/AS4-145-32%RW** Normalization: NA Cured Ply Thickness: 0.0055

Test Type: Filled-Hole Tension Layup 3 Condition: RTD #Plies: 20

Test Method: MP1118 (ASTMD6742)

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Specimen ID	Length, in	Width, in	Thickness, in	Cured Ply Thickness:	Diameter	Width/ Diameter	Diameter/ Thickness	Ultimate Load, lb	Ultimate Strength, ksi	Failure Mode	**Normalized** Ultimate Strength, ksi
AITR1392-ASU1-FHT3-A-MH1-RTD-1	12.0059	1.5086	0.1099	0.0055	0.2513	109.2442	0.0728	15883.40	95.80	MGM	95.71
AITR1392-ASU1-FHT3-A-MH1-RTD-2	12.0057	1.5086	0.1112	0.0056	0.2512	107.9652	0.0737	15242.15	90.86	MGM	91.85
AITR1392-ASU1-FHT3-A-MH1-RTD-3	12.0055	1.5086	0.1107	0.0055	0.2505	108.4834	0.0734	14438.36	86.48	MGM	87.00
AITR1392-ASU1-FHT3-A-MH1-RTD-4	12.0055	1.5086	0.1104	0.0055	0.2510	108.7126	0.0732	NT			
AITR1392-ASU1-FHT3-A-MH2-RTD-1	12.0053	1.5092	0.1125	0.0056	0.2508	106.7135	0.0745	15002.39	88.36	MGM	90.37
AITR1392-ASU1-FHT3-A-MH2-RTD-2	12.0062	1.5081	0.1130	0.0057	0.2510	106.2179	0.0750	15220.80	89.29	MGM	91.75
AITR1392-ASU1-FHT3-A-MH2-RTD-3	12.0063	1.5071	0.1118	0.0056	0.2513	107.3589	0.0742	14013.44	83.14	MGM	84.53
AITR1392-ASU1-FHT3-A-MH2-RTD-4	12.0063	1.5067	0.1130	0.0057	0.2513	106.2504	0.0750	NT			
Minimum	12.0053	1.5067	0.1099	0.0055	0.2505	106.2179	0.0728	14013.4370	83.1422		84.5279
Maximum	12.0063	1.5092	0.1130	0.0057	0.2513	109.2442	0.0750	15883.3960	95.8013		95.7142
Average	12.0058	1.5082	0.1116	0.0056	0.2511	107.6183	0.0740	14966.7552	88.9892		90.2033
Standard Deviation	0.0004	0.0009	0.0012	0.0001	0.0003	1.1605	0.0008	658.7708	4.2630		3.9484
Coefficient of Variation (%)	0.003	0.06	1.08	1.08	0.11	1.08	1.11	4.40	4.79		4.38
No. Specimens	8	8	8	8	8	8	8	6	6		6

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

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	FHC1	MH	ETW2

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	FHC2	MH	ETW2

Test Group: AITR1392-ASU1-FHC2-MH-ETW2

Material: Normalization: NA Cured Ply Thickness: 0.0055

Test Type: Filled-Hole Compression Layup 2 Condition: ETW2 #Plies: 20

Test Method: MP1119 (ASTMD6742)

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						Hole Edge-Side (f)	Hole Edge-End (g)						
AITR1392-ASU1-FHC2-A-MH1-ETW2-1	12.0045	1.5042	0.1121	0.0056	0.2511	0.6225	5.8755	5.9903	2.2393	5467.00	32.41	LGF	33.04
AITR1392-ASU1-FHC2-A-MH1-ETW2-2	12.0045	1.5037	0.1120	0.0056	0.2512	0.6225	5.866	5.9859	2.2429	5496.00	32.63	AGM	33.23
AITR1392-ASU1-FHC2-A-MH1-ETW2-3	12.0049	1.4965	0.1119	0.0056	0.2511	0.6290	5.867	5.9598	2.2443	5871.00	35.06	AGM	35.67
AITR1392-ASU1-FHC2-A-MH1-ETW2-4	11.9968	1.5043	0.1117	0.0056	0.2513	0.6240	5.879	5.9862	2.2491	NT			
AITR1392-ASU1-FHC2-A-MH2-ETW2-1	12.0121	1.4953	0.1115	0.0056	0.2513	0.6285	5.883	5.9504	2.2538	5553.00	33.31	AGM	33.76
AITR1392-ASU1-FHC2-A-MH2-ETW2-2	12.0120	1.4962	0.1125	0.0056	0.2511	0.6300	5.8785	5.9584	2.2320	6206.00	36.87	AGM	37.71
AITR1392-ASU1-FHC2-A-MH2-ETW2-3	12.0119	1.4993	0.1122	0.0056	0.2513	0.6295	5.8705	5.9663	2.2404	5886.00	35.00	LGM	35.69
AITR1392-ASU1-FHC2-A-MH2-ETW2-4	12.0114	1.4912	0.1124	0.0056	0.2515	0.6315	5.872	5.9291	2.2369	NT			
AITR1392-ASU1-FHC2-B-MH1-ETW2-1	12.0046	1.5093	0.1093	0.0055	0.2514	0.6240	5.8655	6.0036	2.2994	6023.00	36.50	AGM	36.28
AITR1392-ASU1-FHC2-B-MH1-ETW2-2	12.0044	1.5086	0.1100	0.0055	0.2515	0.6240	5.866	5.9984	2.2857	6032.00	36.34	AGM	36.35
AITR1392-ASU1-FHC2-B-MH1-ETW2-3	12.0047	1.5085	0.1094	0.0055	0.2513	0.6230	5.868	6.0027	2.2981	6074.00	36.82	LAF	36.61
AITR1392-ASU1-FHC2-B-MH1-ETW2-4	12.0028	1.5085	0.1102	0.0055	0.2509	0.6255	5.8685	6.0124	2.2775	NT			
AITR1392-ASU1-FHC2-B-MH2-ETW2-1	12.0042	1.5062	0.1101	0.0055	0.2509	0.6220	5.869	6.0031	2.2795	6087.00	36.72	AGF	36.74
AITR1392-ASU1-FHC2-B-MH2-ETW2-2	12.0047	1.5067	0.1102	0.0055	0.2511	0.6205	5.8685	6.0004	2.2789	5784.00	34.84	AGM	34.90
AITR1392-ASU1-FHC2-B-MH2-ETW2-3	12.0045	1.5070	0.1103	0.0055	0.2511	0.6215	5.869	6.0017	2.2769	6154.00	37.03	LGF	37.12
AITR1392-ASU1-FHC2-B-MH2-ETW2-4	12.0044	1.5075	0.1106	0.0055	0.2502	0.6215	5.8695	6.0250	2.2625	NT			
AITR1392-ASU1-FHC2-C-MH1-ETW2-1	12.0040	1.5088	0.1061	0.0053	0.2507	0.6200	5.87	6.0185	2.3640	6047.00	37.79	AGF	36.43
AITR1392-ASU1-FHC2-C-MH1-ETW2-2	12.0044	1.5087	0.1074	0.0054	0.2512	0.6210	5.8695	6.0060	2.3382	5714.00	35.25	AGF	34.43
AITR1392-ASU1-FHC2-C-MH1-ETW2-3	12.0045	1.5083	0.1074	0.0054	0.2507	0.6205	5.873	6.0165	2.3339	5932.00	36.61	AGF	35.75
AITR1392-ASU1-FHC2-C-MH1-ETW2-4	12.0038	1.5085	0.1061	0.0053	0.2513	0.6220	5.8705	6.0029	2.3689	NT			
AITR1392-ASU1-FHC2-C-MH2-ETW2-1	12.0036	1.5083	0.1063	0.0053	0.2511	0.6225	5.8665	6.0069	2.3622	5593.00	34.88	AGM	33.71
AITR1392-ASU1-FHC2-C-MH2-ETW2-2	12.0013	1.5073	0.1058	0.0053	0.2508	0.6225	5.8645	6.0101	2.3709	5799.00	36.37	AGF	34.97
AITR1392-ASU1-FHC2-C-MH2-ETW2-3	12.0029	1.5083	0.1063	0.0053	0.2510	0.6245	5.866	6.00083	0.25	0.251.		AGF	

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	FHC3	MH	RTD

Test Group: AITR1392-ASU1-FHC3-MH-RTD

Material:

Normalization: NA Cured Ply Thickness: 0.0055

Test Type: Filled-Hole Compression Layup 3 Condition: RTD #Plies: 20

Test Method: MP1119 (ASTMD6742)

ACG, Inc.
Material & Process
Laboratory Report

						Hole Edge-Side (f)	Hole Edge-End (g)						
AITR1392-ASU1-FHC3-A-MH1-RTD-1	12.0058	1.5072	0.1116	0.0056	0.2513	0.6226	5.87	5.9977	2.2511	NT			
AITR1392-ASU1-FHC3-A-MH1-RTD-2	12.0060	1.5076	0.1116	0.0056	0.2513	0.6223	5.8685	5.9992	2.2518	13831.00	82.21	LGM	83.40
AITR1392-ASU1-FHC3-A-MH1-RTD-3	12.0057	1.5063	0.1114	0.0056	0.2510	0.6217	5.8685	6.0011	2.2538	13479.00	80.35	MGM	81.35
AITR1392-ASU1-FHC3-A-MH1-RTD-4	12.0060	1.5069	0.1111	0.0056	0.2509	0.6244	5.8705	6.0058	2.2590	14712.00	87.90	LGF	88.76
AITR1392-ASU1-FHC3-A-MH2-RTD-1	12.0061	1.5085	0.1136	0.0057	0.2514	0.6248	5.872	6.0005	2.2137	13847.00	80.83	LGF	83.45
AITR1392-ASU1-FHC3-A-MH2-RTD-2	12.0067	1.5092	0.1139	0.0057	0.2514	0.6257	5.8725	6.0032	2.2078	13708.00	79.77	LGF	82.57
AITR1392-ASU1-FHC3-A-MH2-RTD-3	12.0064	1.5082	0.1142	0.0057	0.2514	0.6265	5.8715	5.9993	2.2014	13506.00	78.41	LGM	81.41
AITR1392-ASU1-FHC3-A-MH2-RTD-4	12.0064	1.5079	0.1149	0.0057	0.2513	0.6247	5.869	6.0004	2.1871	NT			
	12.0057	1.5063	0.1111	0.0056	0.2509	0.6217	5.8685	5.9977	2.1871	13479.0000	78.4137		81.3510
	12.0067	1.5092	0.1149	0.0057	0.2514	0.6265	5.8725	6.0058	2.2590	14712.0000	87.9049		88.7573
	12.0061	1.5077	0.1128	0.0056	0.2513	0.6241	5.8703	6.0009	2.2282	13847.1667	81.5786		83.4894
	0.0003	0.0009	0.0015	0.0001	0.0002	0.0017	0.0016	0.0025	0.0286	451.5544	3.3400		2.7389

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AITF		GM	62.09
AITF		GM	59.87
AITF		GM	64.35
AITF		GM	62.82
AITF		GM	56.67
AITF			
AITF		GM	59.81
AITF		GM	58.57
AITF		GM	60.59
AITF		GM	62.80
AITF		GM	64.56
AITF		GM	60.34
AITF		GM	58.20
AITF		GM	56.00
AITF		GM	57.68
AITF		GM	65.34
AITF		GM	49.16
AITF		GM	54.39
AITF		GM	49.49
AITF		GM	46.60
AITF		GM	62.80
AITF			
AITF			
AITF		GM	61.27

	46.5989
	63.3407
	56.8283
	54680

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Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	PB1	MH	ETW2

7HVW *URXS $,75 $68 3% 0+ (7:

0DWHULDO

Test Type: Single Shear Pin Bearing Layup 1

Test Method: MP1120 (ASTMD5961)

Normalization: NA Cured Ply Thickness: 0.0055

Condition: ETW2 #Plies: 24

$&* ,QF

0DWHULDO 3URFHVV

/DERUDWRU\ 5HSRUW

				Hole Center-End (e)	Hole Edge-Side (g)	Hole Edge-End (f)	Hole-Edge/Diameter (e/D)			Initial Peak	Ultimate	2% Offset	4% Offset				
AITR1392-ASU1-PB1-A-MH1-ETW2-1	1.5108	0.1372	0.2511	0.7481	0.6285	0.6225	2.9791	6.017	1.831	NT					0.0057		
AITR1392-ASU1-PB1-A-MH1-ETW2-2	1.5092	0.1337	0.2505	0.7453	0.6270	0.6200	2.9750	6.025	1.874	71.98	86.10	71.11	77.27	B1I	0.0056	87.19	72.01
AITR1392-ASU1-PB1-A-MH1-ETW2-3	1.5094	0.1339	0.2513	0.7447	0.6275	0.6190	2.9632	6.006	1.876	68.50	89.52	67.53	72.16	B1I	0.0056	90.83	68.52
AITR1392-ASU1-PB1-A-MH1-ETW2-4	1.5088	0.1354	0.2514	0.7527	0.6215	0.6270	2.9940	6.001	1.857	88.65	100.55	80.60	86.36	B1I	0.0056	103.12	82.66
AITR1392-ASU1-PB1-A-MH2-ETW2-1	1.5049	0.1359	0.2515	0.7443	0.6235	0.6185	2.9592	5.984	1.850	80.05	90.59	74.74	79.05	B1I	0.0057	93.29	76.97
AITR1392-ASU1-PB1-A-MH2-ETW2-2	1.5088	0.1355	0.2514	0.7552	0.6260	0.6295	3.0040	6.001	1.855	93.01	93.83	64.16	76.69	B1I	0.0056	96.34	65.88
AITR1392-ASU1-PB1-A-MH2-ETW2-3	1.5015	0.1357	0.2515	0.7443	0.620		64.		1								

,QSXW	Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition								
	AITR	1392	ASU1	PB2	MH	RTD								

7HVW *URXS $,75 $68 3% 0+ 57'

0DWHULDO [illegible] $6 5: Normalization: NA Cured Ply Thickness: 0.0055

Test Type: Single Shear Pin Bearing Layup 2 Condition: RTD #Plies: 20

Test Method: MP1120 (ASTMD5961)

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0DWHULDO 3URFHVV /DERUDWRU\ 5HSRUW

1RUPDOL]HG

Specimen ID	Width, in.	Thickness, in.	Diameter	Hole Center-End (e)	Hole Edge-Side (g)	Hole Edge-End (f)	Hole-Edge/ Diameter (e/D)	Width/ Diameter	Diameter/ Thickness	Strength, ksi				Failure Mode	Cured Ply Thickness	Ultimate Strength, ksi	2% Offset Strength, ksi
										Initial Peak	Ultimate	2% Offset	4% Offset				
AITR1392-ASU1-PB2-A-MH1-RTD-1	1.5095	0.1106	0.2512	0.7503	0.6236	0.6247	2.9869	6.009	2.271	68.41	109.24	63.48	81.86	B1I	0.0055	109.87	63.84
AITR1392-ASU1-PB2-A-MH1-RTD-2	1.5093	0.1106	0.2511	0.7508	0.6305	0.6252	2.9898	6.011	2.271	70.64	106.62	66.41	75.29	B1I	0.0055	107.16	66.75
AITR1392-ASU1-PB2-A-MH1-RTD-3	1.5091	0.1116	0.2516	0.7499	0.6200	0.6241	2.9805	5.998	2.255	57.83	106.71	55.41	75.99	B1I	0.0056	108.22	56.19
AITR1392-ASU1-PB2-A-MH1-RTD-4	1.5094	0.1119	0.2507	0.7487	0.6303	0.6233	2.9862	6.021	2.241	NT					0.0056		
AITR1392-ASU1-PB2-A-MH2-RTD-1	1.4954	0.1105	0.2508	0.7505	0.6305	0.6251	2.9924	5.963	2.271	69.64	112.31	65.66	81.45	B1I	0.0055	112.77	65.93
AITR1392-ASU1-PB2-A-MH2-RTD-2	1.4956	0.1105	0.2505	0.7471	0.6306	0.6218	2.9822	5.971	2.266	70.15	112.03	65.25	76.49	B1I	0.0055	112.57	65.56
AITR1392-ASU1-PB2-A-MH2-RTD-3	1.4951	0.1106	0.2514	0.7582	0.6285	0.6325	3.0159	5.947	2.273	62.09	116.98	59.90	61.35	B1I	0.0055	117.60	60.22
AITR1392-ASU1-PB2-A-MH2-RTD-4	1.4946	0.1102	0.2519	0.7541	0.6310	0.6281	2.9934	5.933	2.286						0.0055		
Minimum	1.4946	0.1102	0.2505	0.7471	0.6200	0.6218	2.9805	5.9334	2.2414	57.8300	106.6156	55.4140	61.3530		0.0055	107.1648	56.1948
Maximum	1.5095	0.1119	0.2519	0.7582	0.6310	0.6325	3.0159	6.0206	2.2858	70.6370	116.9757	66.4090	81.8640		0.0056	117.5960	66.7511
Average	1.5023	0.1108	0.2512	0.7512	0.6281	0.6256	2.9909	5.9815	2.2668	66.4595	110.6477	62.6843	75.2890		0.0055	111.3652	63.0828
Standard Deviation	0.0076	0.0006	0.0005	0.0035	0.0041	0.0033	0.0111	0.0325	0.0132	5.2647	3.9604	4.2543	7.4405		0.00003	3.7956	4.0963
Coefficient of Variation (%)	0.50	0.52	0.19	0.46	0.65	0.53	0.37	0.54	0.58	7.92	3.58	6.79	9.88		0.52	3.41	6.49
No. Specimens	8	8	8	8	8	8	8	8	8	6	6	6	6		8	6	6

1RWHV

NT=Not Tested

NR=No Result

NA=Not Applicable

GE=Gage Error

*=Test Terminated at 50% Extension

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	PB3	MH	RTD

7HVW *URXS $,75 $68 3% 0+ 57'

0DWHULDO

Test Type: Single Shear Pin Bearing Layup 3

Test Method: MP1120 (ASTMD5961)

Normalization: NA Cured Ply Thickness: 0.0055

Condition: RTD #Plies: 20

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0DWHULDO 3URFHVV

/DERUDWRU\ 5HSRUW

				Hole Center-End (e)	Hole Edge-Side (g)	Hole Edge-End (f)	Hole-Edge/Diameter (e/D)			Initial Peak	Ultimate	2% Offset	4% Offset				
AITR1392-ASU1-PB3-A-MH1-RTD-1	1.5061	0.1104	0.2512	0.7509	0.6292	0.6253	2.9893	5.996	2.275	60.55	103.09	62.62	78.61	B1I	0.0055	103.47	62.84
AITR1392-ASU1-PB3-A-MH1-RTD-2	1.5059	0.1106	0.2524	0.7547	0.6251	0.6285	2.9901	5.966	2.283	101.59	102.64	63.91	86.31	B1I	0.0055	103.16	64.23
AITR1392-ASU1-PB3-A-MH1-RTD-3	1.5057	0.1107	0.2518	0.7561	0.6259	0.6302	3.0028	5.980	2.275	58.03	109.09	62.30	80.83	B1I	0.0055	109.76	62.67
AITR1392-ASU1-PB3-A-MH1-RTD-4	1.5060	0.1114	0.2511	0.7431	0.6271	0.6175	2.9592	5.998	2.255	NT					0.0056		
AITR1392-ASU1-PB3-A-MH2-RTD-1	1.5056	0.1109	0.2508	0.7450	0.6289	0.6196	2.9705	6.003	2.263	72.32	113.30	85.22	91.08	B1I	0.0055	114.18	85.88
AITR1392-ASU1-PB3-A-MH2-RTD-2	1.5059	0.1109	0.2523	0.7547	0.6255	0.6285	2.9911	5.969	2.275	92.63	105.59	72.18	79.21	B1I	0.0055	106.44	72.75
AITR1392-ASU1-PB3-A-MH2-RTD-3	1.5055	0.1117	0.2509	0.7467	0.6285	0.6212	2.9759	6.000	2.246	60.53	104.34	61.07	86.31	B1I	0.0056	105.98	62.03
AITR1392-ASU1-PB3-A-MH2-RTD-4	1.5051	0.1114	0.2510	0.7497	0.6283	0.6242	2.9869	5.997	2.253	NT					0.0056		
Minimum	1.5051	0.1104	0.2508	0.7431	0.6251	0.6175	2.9592	5.9662	2.2455	58.0290	102.6420	61.0680	78.6120		0.0055	103.1552	62.0303
T at 50% E x б з	1.5061	0.1117	0.2524	0.7561	0.6292	0.6302	3.0028	6.0033	2.2831	101.5890	113.3045	85.2230	91.0780		0.0056	114.1801	85.8815
	1.5057	0.1110	0.2514	0.7501	0.6273	0.6244	2.9832	5.9885	2.2657	74.2727	106.3436	67.8805	83.7250		0.0055	107.1631	68.4014
	0.0003	0.0005	0.0006	0.0049	0.0016	0.0046	0.0138	0.0148	0.0134	18.5908	4.1203	9.3843	4.9476		0.00002	4.1857	9.4472
	0.02	0.42	0.25	0.65	0.26	0.74	0.46	0.25	0.59	25.03	3.87	13.82	5.91		0.42	3.91	13.81
	8	8	8	8	8	8	8	8	8	6	6	6	6		8	6	6

1RWHV

NT=Not Tested

NR=No Result

NA=Not Applicable

GE=Gage Error

*=Test Terminated at 50% Extension

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	PB3	MH	ETW2

7HVW *URXS $,75 $68 3% 0+ (7:
0DWHULDO
Test Type: Single Shear Pin Bearing Layup 3
Test Method: MP1120 (ASTMD5961)

Normalization: NA Cured Ply Thickness: 0.0055
Condition: ETW2 #Plies: 20

$&* ,QF
0DWHULDO 3URFHVV
/DERUDWRU\ 5HSRUW

				Hole Center-End (e)	Hole Edge-Side (g)	Hole Edge-End (f)	Hole-Edge/Diameter (e/D)			Initial Peak	Ultimate	2% Offset	4% Offset				
AITR1392-ASU1-PB3-A-MH1-ETW2-1	1.5071	0.1117	0.2514	0.7507	0.6250	0.6250	2.9861	5.995	2.251	74.61	89.69	74.19	79.83	B1I	0.0056	91.05	75.32
AITR1392-ASU1-PB3-A-MH1-ETW2-2																	

Input:	Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
	AITR	1392	ASU1	ILT1	MH	RTD

Test Group: AITR1392-ASU1-ILT1-MH-RTD

Material: MTM45-1/AS4-145-32%RW Normalization: NA Cured Ply Thickness: 0.0055 **ACG, Inc.**

Test Type: Interlaminar Tension Layup 1 Condition: RTD #Plies: 32 **Material**

ASTM D6415 Spec Dimensions*

Specimen ID	Width, in	Thickness, in	Area, in²	Ultimate Load, lb	Ultimate Strength, ksi	Cured Ply Thickness	Normalized Ultimate Strength, ksi
AITR1392-ASU1-ILT1-A-MH1-RTD-2	0.1892	1.0062	0.2500	0.4392	90.0300	36.1096	0.253	492.000	307.38
AITR1392-ASU1-ILT1-A-MH1-RTD-3	0.1855	1.0063	0.2550	0.4405	90.0500	37.2170	0.226	416.000	270.23
AITR1392-ASU1-ILT1-A-MH1-RTD-4	0.1882	1.0073	0.2550	0.4432	90.0400	36.1605	0.242	448.000	284.44
AITR1392-ASU1-ILT1-A-MH1-RTD-5	0.1833	1.0060	0.2550	0.4383	90.0260	35.5210	0.263	489.000	298.24
AITR1392-ASU1-ILT1-A-MH1-RTD-6	0.1867	1.0058	0.2550	0.4417	90.7010	34.1237	0.294	576.000	335.80
AITR1392-ASU1-ILT1-A-MH1-RTD-7									
AITR1392-ASU1-ILT1-A-MH1-RTD-8									
Minimum	0.1833	1.0058	0.2500	0.4383	90.0000	0.8980	29.3668	0.2661	541.66
Maximum	0.1892	1.0073	0.2590	0.4458	90.0000	1.0531	37.2707	0.3830	530.40
Average	0.1866	1.0064	0.2548	0.4414	90.0000	1.0038	34.8304	0.2746	678.95
Standard Deviation	0.0020	0.0005	0.0029	0.0028	0.0000	0.0567	2.8821	0.0560	78
Coefficient of Variation (%)	1.10	0.05	1.12	0.62	0.00	5.65	8.27	20.48	11.47	12.
No. Specimens	6	6	6	6	6	6	6	6	6	6

NT=Not Tested
NR=No Result
NA=Not Applicable

Notes:

Test Plan Prefix	Test Plan #	Material	Test	Cure Cycle	Condition
AITR	1392	ASU1	ILT1	MH	ETW2

Test Group: AITR1392-ASU1-ILT1-MH-ETW2

Material:

Normalization: NA

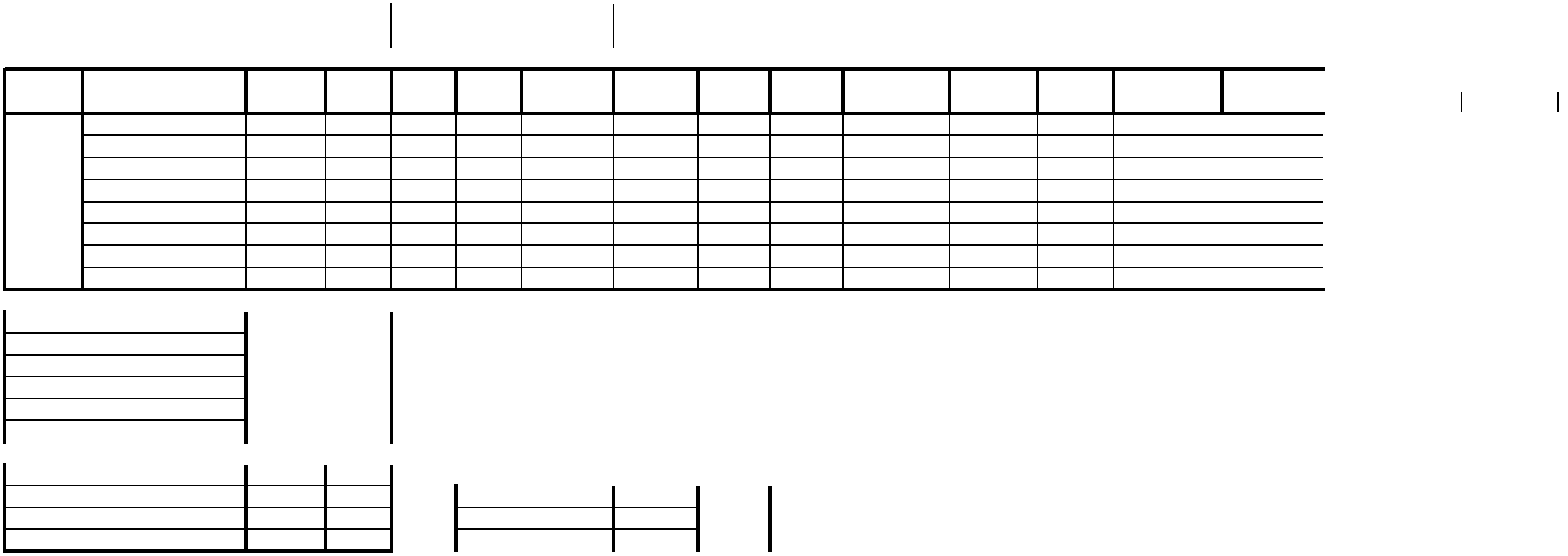
Cured Ply Thickness: 0.0055

Test Type: Interlaminar Tension Layup 1

Condition: ETW2

#Plies: 32

Test Method: MP1122 (ASTMD6415)

ACG, Inc.
Material & Process
Laboratory Report

	Thick, In.	Width, in.	r_{inner}, in	r_{outer}, in	$Angle_i$, Deg				P, lb			Failure Mode		
AITR1392-ASU1-ILT1-A-MH1-ETW2-1	0.1848	1.0057	0.2500	0.4348	89.0000	1.1019	39.3829	0.161	258.000	181.14	4.46	ILT	0.0058	4.68
AITR1392-ASU1-ILT1-A-MH1-ETW2-2	0.1895	1.0057	0.2500	0.4395	90.0000	1.1307	40.3419	0.154	234.000	170.99	4.08	ILT	0.0059	4.40
AITR1392-ASU1-ILT1-A-MH1-ETW2-3	0.1902	1.0087	0.2500	0.4402	90.0000	1.1533	41.1891	0.132	183.000	137.84	3.28	ILT	0.0059	3.54
AITR1392-ASU1-ILT1-A-MH1-ETW2-4	0.1902	1.0092	0.2500	0.4402	90.0000	1.1432	40.8011	0.143	216.000	160.18	3.81	ILT	0.0059	4.12
AITR1392-ASU1-ILT1-A-MH1-ETW2-5	0.1887	1.0087	0.2500	0.4387	90.0000	1.1411	40.7826	0.143	219.000	162.18	3.89	ILT	0.0059	4.17
AITR1392-ASU1-ILT1-A-MH1-ETW2-6	0.1948	1.0088	0.2500	0.4448	90.0000	1.1426	40.5797	0.150	226.000	166.81	3.85	ILT	0.0061	4.26
AITR1392-ASU1-ILT1-A-MH1-ETW2-7														
AITR1392-ASU1-ILT1-A-MH1-ETW2-8														
	0.1848	1.0057	0.2500	0.4348	89.0000	1.1019	39.3829	0.1325	183.0000	137.84	3.2777		0.0058	3.5415
	0.1948	1.0092	0.2500	0.4448	90.0000	1.1533	41.1891	0.1611	258.0000	181.14	4.4585		0.0061	4.6823
	0.1897	1.0078	0.2500	0.4397	89.8333	1.1355	40.5129	0.1471	222.6667	163.19	3.8955		0.0059	4.1954
	0.0032	0.0016	0.0000	0.0032	0.4082	0.0179	0.6203	0.0101	24.5737	14.48	0.3856		0.0001	0.3786
	1.69	0.16	0.00	0.73	0.45	1.58	1.53	6.84	11.04	8.87	9.90		1.69	9.02
	6	6	6	6	6	6	6	6	6	6	6		6	6