CENTRE FOR ADVANCED COMPOSITE MATERIALS

Mechanical Testing Laboratory



Method description

Tensile Test on the basis of ASTM-D638

Temperature (°C)	21.0
Load Frame	Instron Model 1185
Loadcell	Instron Model 2518-201 100kN
Extensometer G.L.	50 mm
Operator	Quentin Govignon

Sample description Various

Results Table:

Nesalts Tab	Specimen Name	Width (mm)	Thickness (mm)	Yield Strength (MPa)	UTS (MPa)	Maximum Load (kN)	Modulus (Young's 0.025 % - 0.5 %) (GPa)
1	PC #1	13.47	9.26	64.1	64.1	7.999	2.673
2	PC #2	13.44	9.27	65.0	65.0	8.096	2.511
3	PC #3	13.46	9.29	65.0	65.0	8.128	2.519
4	PC #4	13.50	9.22	64.6	64.6	8.046	2.576
5	PC #5	13.50	9.24	64.6	64.6	8.063	2.610
Mean		13.47	9.26	64.7	64.7	8.066	2.578
Standard Deviation		0.03	0.03	0.35	0.35	0.05	0.07

	Modulus (Chord 0.05 % - 0.25 %) (GPa)	Modulus (Chord 0.05 % - 2 %) (GPa)	Elongation at Yield (%)	Extension at Break (mm)	Strain at Break (%)	Comment
1	2.428	1.989	6.06	55.43	53.0	Did draw beyond parallel length.
2	2.431	2.045	6.02	104.38	99.9	Did draw beyond parallel length.
3	2.426	2.003	6.14	57.68	55.1	Did draw beyond parallel length.
4	2.384	1.992	6.06	78.66	75.2	Did draw beyond parallel length.
5	2.388	2.009	6.07	93.42	89.5	Did draw beyond parallel length.
Mean	2.411	2.008	6.07	77.92	74.5	
Standard Deviation	0.02	0.02	0.05	21.54	20.67	

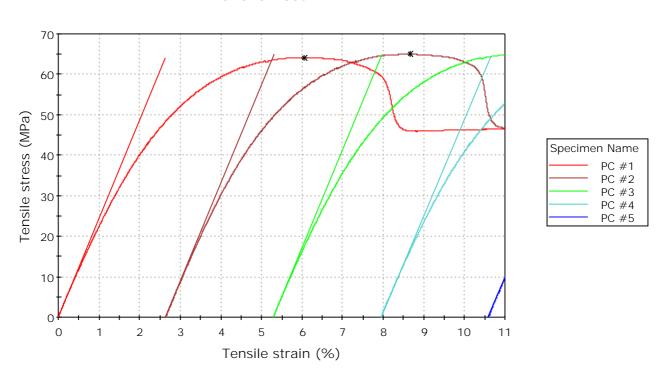
The Modulus line shows the Chord Modulus between 0.05% and 0.25% strain

CENTRE FOR ADVANCED COMPOSITE MATERIALS

Mechanical Testing Laboratory



Tensile Test



Graph 2

Tensile Test 1 of 5

