



Mechanical Test Report

ARL Report No.

MMPL-101-003-LT

Client: Monocure 3D
Client Address: Unit 17, 364 Park Road, Regents Park NSW 2143
Project Job: Flexural Bend testing of plastics
Material: Plastic material
Order No.: TBA
Requested By: Charlie Anderson
Work Voucher No.: D0169
Tested By: S. Sameem/ S. Noor/ F. Ali
Test Date: 30/06/30 and 04/09/2020

Tensile Test Results

Method Code: ASTM D638-14
Acceptance Code: Supply Findings
Specimen Type: Rectangular beam samples (Type IV)
Equip' Serial No.: UTM Serial No. 075
Conditioning: Tested at ambient temperature

Specimen ID	Cross Sectional Area (mm ²)	Max Force (kN)	Tensile Strength (MPa)	Percentage Elongation at Break	Young's Modulus (GPa)
Photon 25mm – 20 Min Cure	30.88	0.58	19	0.5	0.3
Photon 25mm – 1 Hr Cure	28.21	1.18	42	3.5	0.4
Photon 25mm – 1 Day + 1 Hr Cure	26.47	1.64	62	4.0	0.8
Sonic mini 30mm – 20 Min Cure	26.62	0.72	27	0.5	0.3
Sonic mini 30mm – 1 Hr Cure	26.98	1.38	51	1.0	0.4
Sonic mini 30mm – 1 Day + 1 Hr Cure	28.93	1.26	44	0.5	0.7

Test Results: Supply Findings

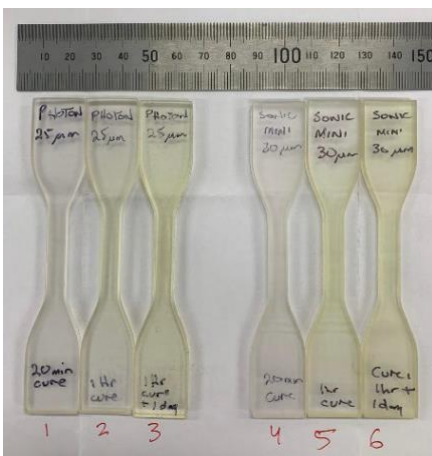



Fig 1A. Test samples as received.



Fig 1B. Tensile Test Set Up



Fig 1C. Tensile Tested Samples

Reviewed By: Wayne Robinson
Signed By: Sam Sameem
Signature: 
Dated: 7-Sep-20



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Flexural Bend Test Results

Method Code: ASTM D790-10
Acceptance Code: Supply Findings
Specimen Type: Rectangular beam samples (Type IV)
Equip' Serial No.: UTM Serial No. 075
Conditioning: Tested at ambient temperature
Test Procedure: Method A

Specimen ID	Nominal Length (mm)	Nominal Width (mm)	Nominal Thickness (mm)	Span (mm)	Maximum Load Applied (N)	Flexural Stress (MPa)	Max Flexural Strain (mm/mm)
Black-1	109.29	19.62	7.60	96.12	140	135	0.05
Black-2	109.52	20.95	7.13	80.03	180	145	0.05
Black-3	109.20	20.15	6.89	78.97	140	119	0.05
Black-4	109.15	19.88	6.85	81.19	160	143	0.05
Transparent-1	110.05	20.20	7.07	97.48	380	389	0.05
Transparent-2	110.20	19.88	7.10	86.23	380	348	0.05
Transparent-3	109.97	19.84	7.03	86.61	400	373	0.05
Transparent-4	109.91	20.11	7.03	93.39	240	238	0.05

Test Results: Supply Findings

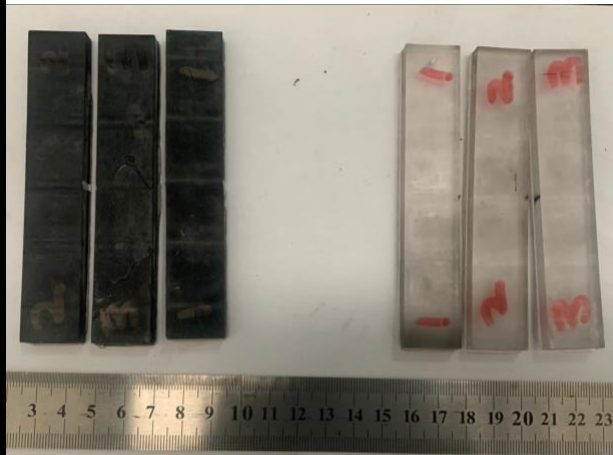


Fig 2A. Test sample as received.



Fig 2B. Bend test set up





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Shore Hardness Test Results

Method Code: ASTM D2240-10
Acceptance Code: Supply Findings
Equip' Serial No.: Durometer S/N: DSH-01
Conditioning: Tested at ambient temperature

Specimen ID	Average of 9 results (Scale D)
Photon 25mm – 20 Min Cure	97.8
Photon 25mm – 1 Hr Cure	93.3
Photon 25mm – 1 Day + 1 Hr Cure	93.1
Sonic mini 30mm – 20 Min Cure	92.7
Sonic mini 30mm – 1 Hr Cure	93.1
Sonic mini 30mm – 1 Day + 1 Hr Cure	92.5

Test Results: Supply Findings

===== End of Report =====