

# WaterShed<sup>®</sup> XC 11122

## Technical Data:

### Mechanical Properties

		WaterShed <sup>®</sup> XC 11122 UV Postcure		ABS (transparent)*		Polybutylene* Terephthalate	
ASTM Method	Property Description	Metric	Imperial	Metric	Imperial	Metric	Imperial
D638M	Tensile Strength at Break	47.1 - 53.6 MPa	6.8 – 7.8 ksi	45.7 MPa	6,628 psi	55 MPa	7,977 psi
D638M	Elongation at Break	11 - 20%	11 - 20 %	41.6%	41.6 %	20%	20%
D638M	Elongation at Yield	3%	3%	N/A	N/A	3.5 - 9%	3.5 – 9.0%
D638M	Modulus of Elasticity	2,650 - 2,882 MPa	384 – 418 ksi	2,000 MPa	290 ksi	2,700 MPa	391 ksi
D790M	Flexural Strength	63.4 - 74.4 MPa	9.2 - 10.8 ksi	73.5 MPa	10.7 ksi	80 MPa	11.6 ksi
D790M	Flexural Modulus	2,040 – 2,372 MPa	296 - 344 ksi	2,300 MPa	344 ksi	2,500 MPa	362 ksi
D256A	Izod Impact-Notched	0.2 - 0.3 J/cm	0.4 - 0.6 ft-lb/in	1.6 J/cm	1.5 - 2.0 ft-lb/in	1.2 J/cm	0.56 ft-lb/in
D542	Index of Refraction	1.512 - 1.515	1.512 - 1.515	1.52	1.52	N/A	N/A
D1004	Graves Tear	150,288 N/m	833 - 858 ft-lb/in	N/A	N/A	N/A	N/A
D570-98	Water Absorption	0.35%	0.35%	0.20 - 0.45%	0.20 - 0.45 %	0.16%	0.16 %

\*<http://www.matweb.com>

## Technical Data:

### Thermal/Electrical Properties

		WaterShed <sup>®</sup> XC 11122 UV Postcure		ABS* (transparent)		Polybutylene* Terephthalate	
E831-05	C.T.E. -40°C - 0°C (-40 °F – 32°F)	66 - 67 μm/m°C	37 μin/in°F	60 - 130 μm/m°C (no temp range given)	33 - 72 μin/in°F (no temp range given)	50-145 μm/m°C (no temp range given)	28 - 81 μin/in°F (no temp range given)
E831-05	C.T.E. 0°C - 50°C (32°F – 122°F)	90 - 96 μm/m°C	50 – 53 μin/in°F				
E831-05	C.T.E. 50°C - 100°C (122°F – 212°F)	170 - 189 μm/m°C	94 – 105 μin/in°F				
E831-05	C.T.E. 100°C - 150°C (212°F – 302°F)	185 - 189 μm/m°C	103 – 105 μin/in°F				
D150-98	Dielectric Constant 60 Hz	3.9 - 4.1	3.9 - 4.1	3.7	3.7	2.9 - 4.0 (no frequency specified)	2.9 - 4.0 (no frequency specified)
D150-98	Dielectric Constant 1KHz	3.7 - 3.9	3.7 - 3.9	not recorded	not recorded		
D150-98	Dielectric Constant 1MHz	3.4 - 3.5	3.4 - 3.5	3.7	3.7		
D149-97a	Dielectric Strength	15.4 - 16.3 kV/mm	390 - 413 V/mil	13.8 - 19.7 kV/mm	350 - 500 V/mil	14.7 - 30 kV/mil	373 - 762 V/mil
E1545-00	Tg	39 – 46°C	102 – 109°F	not recorded	not recorded	41°C	106°F
D648-98c	HDT @ 0.46 MPa (66 psi)	45.9 - 54.5°C	115 – 130°F	94 - 207°C	201 – 405°F	150°C	302°F
D648-98c	HDT @ 1.81 MPa (264 psi)	49.0 - 49.7°C	120°F	86 - 194°C	187 – 381°F	61°C	142°F

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