

Physical and Mechanical Properties

Chemcast Cast Acrylic

PROPERTY	TYPICAL VALUE (1)	TEST METHOD
Optical		
Specific Gravity	1.18	ASTMD 792
Optical Refractive Index	1.49	ASTMD 542
Haze (%)	2.0	ASTMD 542
Light Transmission (%)		
0.100" - 0.197"	92	ASTM 1003
0.220" - 0.472"	90	ASTM 1003
Mechanical		
Tensile Strength (psi)	9600	ASTM D638
Elongation at Rupture (%)	4.5	ASTM D638
Modulus of Elasticity (psi)	450,000	ASTM D798
Impact Strength(ft lb/in)	0.4 - 0.5	ASTM 256
Flexural Strength (psi)	15000 - 16000	ASTM D798
Rockwell Hardness	M (90 - 100)	ASTM 785
Barcol Hardness	50	ASTM 2583
Thermal		
Forming Temperature (°C)	140 - 180	ASTMD 648
(°F)	284 - 356	ASTMD 648
Detection Temperature		
Under Load (264 psi) (°C)	91	
(°F)	196	
Maximum recommended continuous service temp (°C)	80	ASTM 1525
(°F)	176	ASTM 1525
Miscellaneous		
Water absorption (24 hrs. - 23°C-73°F) (%)	0.3%	ASTM 570

All values refer to 0.118" (3.0 mm) acrylic sheet. These value are typical and should not be taken as specifications.



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