

## Cast Acrylic Sheet

### Physical Properties

Technical Data	Standard	Unit	Acrylic (Cast)
<b>GENERAL</b>			
Specific Gravity	ASTM D 792	-	1.19
Water Absorption (24HR@73°F)	ASTM D 570	%	0.3
Vicat Softening Point	ASTM D 1525	°C	115
<b>MECHANICAL</b>			
Tensile Strength	ASTM D 638	kg/cm <sup>2</sup>	770
Tensile Elongation	ASTM D 638	%	4.1
Flexural Strength	ASTM D 790	kg/cm <sup>2</sup>	1040
Flexural Modulus	ASTM D 790	kg/cm <sup>2</sup>	3.1x10 <sup>4</sup>
Izod Impact Strength	ASTM D 256	kJ/m <sup>2</sup>	2.0
Charpy Impact Strength	ASTM D 256	kg/cm <sup>2</sup>	0.35
Internal Strain	ASTM D 702	%	2
Rockwell Hardness	ASTM D 785	M scale	100
Pencil Hardness	JIS D 0202	-	2H
Specific Surface Resistance	ASTM D 257	Ohm	>10 <sup>14</sup>
<b>OPTICAL</b>			
Total Light Transmittance	ASTM D 1003	%	92
Haze	ASTM D 1003	%	1
Reflective Index ( $\eta D^{20}$ )	ASTM D 542	-	1.49
<b>THERMAL</b>			
Heat Conductivity	-	w/m.K	0.209
Specific Heat Capacity	-	Cal/gr°C	0.35
Deflection Temperature under load (264psi)	ASTM D 648	°C	93
Maximum Continuous use Temperature	-	°C	80
Flammability	UL 94	-	HB
Linear Expansion Coefficient	ASTM D 696	in/in°F	3.4X10 <sup>-5</sup>

*Note:*

(a) These are typical or averaged values and should not be used for specification purpose.

(b) Values shown are for 6 mm thickness unless noted otherwise. Some values will change with thickness.

(c) All values for the clear product.

### Water Absorption Properties

Properties	Testing Method	Value
<b>Water Absorption</b>		
24hr@73°F	ASTM D 570	
Weight Gain during Immersion		0.3%
Soluble Matter Lost		0%
Water Absorbed		0.3%
Dimension Change during Immersion		0.3%
<b>Long Term Water Absorption</b>		
Weight Gain during Immersion	ASTM D 570	
7 days		0.5%
14 days		0.6%
35 days		1.0%
48 days		1.1%