

PHYSICAL AND MECHANICAL PROPERTIES



PROPERTY	TYPICAL VALUE (1)	TEST METHOD
OPTICAL		
Specific Gravity	1.18	ASTMD 792
OpticalRefractive Index	1.49	ASTMD 542
Haze (%)	2.0	ASTMD 542
LightTransmission (%)		
0.100" - 0.197"	92	ASTM 1003
0.220" - 0.472"	90	ASTM 1003
MECHANICAL		
Tensile Streght (psi)	9600	ASTM D638
Elongation at Rupture (%)	4.5	ASTM D638
Modulus of Elasticity (psi)	425,000	ASTM D798
Impact Strength (ft lb/in)	0.4 - 0.5	ASTM 256
Flexural Strength (psi)	15000 - 16000	ASTM D 798
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 referred to 0.118" (3.0 mm) acrylic sheet. These values are typical and should not be taken as specifications.

[More info about Acrylic](#)

[More info about PROP 65](#)



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CHEMICAL RESISTANCE



CHEMICAL	CODE	CHEMICAL	CODE
Acetic Acid (10%)	LR	Hydrogen Peroxide (3%)	R
Acetic Acid (glacial)	N	Isopropyl Alcohol	LR
Acetone	N	Kerosene	R
Ammonium Chloride	R	Lacquer Thinner	N
Ammonium Hydroxide	R	Methyl Alcohol (30%)	LR
Benzene	N	Methyl Alcohol (100%)	N
Calcium chloride	R	Methyl Ethyl Ketone	N
Carbon Tetrachloride	N	Methylene Chloride	N
Chloroform	LR	Nitric Acid (10%)	R
Chromic Acid (10%)	N	Nitric Acid (100%)	N
Chromic Acid (conc.)	N	Phenol (5%)	N
Diethyl Ether	LR	Sodium Chloride	R
IOctI Phthalate	LR	Sodium Hydroxide (10%)	R
Ethyl Alcohol (30%)	N	Sodium Hypochlorite	R
Ethyl Alcohol (95%)	N	Sulfuric Acid (3%)	N
Ethylene Dichloride	N	Sulfuric Acid (conc.)	N
Ethylene Glycol	R	Toluene	N
Gasoline	LR	Trichloroethylene	N
Glycerin	R	Turpentine	R
Hexane	R	Water (distilled)	R
Hydrochloric Acid	R	Xylene	N

The code is used to describe chemical resistance as follows:

R = RESISTANT

Acrylic cast withstand this substance for long periods and at temperature up to 120°F (49°C).

LR = LIMITED RESISTANCE

Acrylic only resists the action of this substance for short periods at room temperature.

N = NOT RESISTANT

Acrylic is not resistant to this substance. It is swelled, attacked, dissolved or damaged in some manner.

These values are typical and should not be taken as specification