CELL CAST UV-F

PRODUCT PROPERTIES

Cell cast UV-F is a high quality optical cell cast acrylic sheet designed and oriented to meet applications where superior protection against ultraviolet radiation is required. Cell cast UV-F guarantees the absorption of 98% of the radiation that causes deterioration.

The main applications for this product is in museums, art rooms, libraries or where extra UV protection is required for the preservation of articles such as paintings, documents, pieces of art, artistic prints and photographs..

Property	Typical Value	Method	
OPTICAL			
% of Light Transmission	92%	ASTM D 1003	
(0.100″ – 0.197″)			
Haze	2.0	ASTM D 542	
PHYSICAL -			
MECHANICAL			
Specific Gravity	1.18	ASTM D 792	
Tensile Strength	9600 lb/in2	ASTM D 638	
Elongation at Rupture (%)	4.5 %	ASTM D 638	
Modulus of Elasticity	425000 lb/in2	ASTM D 798	
Flexural Strength	15,000 a 16,000	ASTM D 798	
Izod Impact Strength	0.40 – 0.50 ft lb/in	ASTM D 256	
Rockwell Hardness	M 90 - 100	100 ASTM D 785	
THERMAL			
Maximum recommended	80 C		
continuous service temp			
Deflection Temperature	91 C	ASTM D 648	
Under Load (264 psi) (°C)			
Coefficient of thermal	4 x 10-5 in/in F ASTM D 696		
expansion			

Technical Data



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PERFORMANCE		
Water absorption (24	0.3%	ASTM D 570
hr.)		
% of Light transmission	Máximo 2.0%	
in the UV Region		

All values are referred to 3.0 mm (0.118") CELL CAST UV-F acrylic sheet. These values are typical and should not be taken as specifications.

Cell cast UV-F protects at least against 98% of UV radiation causing deterioration





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Chemical resistance:

CHEMICAL	CODE	CHEMICAL	CODE
Acetic Acid (10%)	R	Hydrogen Peroxide (3%)	R
Acetic Acid (glacial)	N	Isopropyl Alcohol	LR
Acetone	RL	Kerosene	R
Ammonium Chloride	R	Lacquer Thinner	RL
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	N	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
IOCtl Phthalate	LR	Sodium Hydroxide (10%)	R
Ethyl Alcohol (30%)	R	Sodium Hypochlorite	R
Ethyl Alcohol (95%)	RL	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 either swelled, attacked, dissolved or damaged in some manner.

These values are typical and should not be taken as specification.

