

Product Data - ACRYLITE CY FF AR2 Acrylic



Product

ACRYLITE CY FF AR2 Acrylic sheet is a continuously manufactured acrylic sheet that has excellent abrasion and chemical resistant properties with outstanding optical quality.

Applications

ACRYLITE CY FF AR2 Acrylic is ideal for a wide variety of applications including:

- Glazing
- P-O-P Displays / Store Fixtures
- Menu Boards
- Electronic Displays / Museum Displays
- Signs & Directories
- Furniture & Interiors
- Framing
- Sports Arena Glazing
- Architectural Glazing
- Security Glazing
- Automotive Interiors
- Instrument Cluster Panels

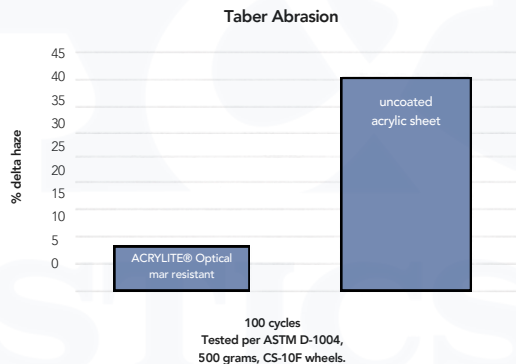
Properties

ACRYLITE CY FF AR2 Acrylic sheet provides the following outstanding properties:

- Optical clarity
- Abrasion resistance
- Chemical resistance
- Ease of fabrication
- Light weight – half the weight of glass
- Strength – many times the impact strength of glass

Physical Properties

Property		ASTM Method	Typical Substrate Value (3.0 mm Thickness)
Mechanical	Tensile Strength	D 638	10,000 psi (69 M Pa)
	Elongation, Rupture	-	4.5%
	Modulus of Elasticity	-	4000-,000 (2800 M Pa)
	Flexural Strength	D 790	17,000 psi (117 M Pa)
	Modulus of Elasticity	-	480,000 psi (3300 M Pa)
	Izod Milled Notched	D 256	0.4 ft.lbs/in. (21.6 J/m) of notch
Optical	Light Transmission	D 1003	92%
Thermal	Deflection Temperature Under Load (264 psi)	D 648	195°F (91°C)
	Vicat Softening Point	D 1525	220°F (105°C)
	Coefficient of Linear Thermal Expansion	D 696	0.000040 in/in•°F (.000068 m/m•°C)
	Coefficient of Thermal Conductivity	C 177	1.3 BTU/hr.ft.2•°F/in (.19W/m•°K)
Flammability	Burn Rate	D 635	1.0 in/min (25 mm/min)
	Self-Ignition Temperature	D 1929	830°F (443°C)
	Smoke Density Rating	D 2843	1%
Abrasion Resistance of the Coating	-	-	Change in Haze
	Rotary Brass Wool (25 cycles)	Proprietary method	< 1%
	Taber Abrasion (100 cycles)	D 1044	< 2%
	Falling Sand (3,000 grams)	DIN 52 348	< 10%



Chemical	ACRYLITE® Optical mar resistant	Standard Acrylic Sheet
Acetone	> 24 hrs	< 15 min
Ethylene Dichloride	> 24 hrs	< 15 min
Gasoline	> 24 hrs	> 24 hrs
Hydrochloric Acid	> 24 hrs	> 24 hrs
Methyl Alcohol	> 24 hrs	> 24 hrs
Methylene Chloride	> 24 hrs	< 15 min
Methyl Ethyl Ketone	> 24 hrs	> 15 min
Nitric Acid	> 24 hrs	< 15 min
Sodium Hydroxide	> 24 hrs	< 24 hrs
Sulfuric Acid	> 24 hrs	< 15 min
Toluene	> 24 hrs	< 15 min
Isopropanol	> 24 hrs	> 24 hrs
Kerosene	> 24 hrs	> 24 hrs

Testing the resistance of these chemicals was conducted per ASTM D 1308. Time intervals for visually inspecting the sheet surface: 15 minutes, 1 hour and 24 hours. The table shows the time it took the chemical to visually attack the surface.

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