

R-Cast™ ice & textures



Applications

- Decorative paneling
- Partitions
- Water features
- Signage
- Furniture
- Displays
- and more...

Benefits

- Excellent UV properties
- High impact resistance - 17x greater than glass and 4x greater than concrete
- Superb weatherability - won't yellow or show signs of aging
- Realistic ice-like texture
- Can be illuminated to enhance effect
- Customizable machined textures

Sheet Size

48" x 96" (1.22m x 2.44m)

Custom sheet sizes available upon request

Thickness

Textures **1.0"** (25.4mm)

Ice **0.50"** (12.7mm)

1.0" (25.4mm)

Custom gauges available upon request

Color Availability

- Clear
- Custom colors available by special order

Surface Finishes

- Frosted finish
- Gloss finish

Textures

- Ice - replicates ice
- Waves
- Custom textures available

R-Cast™ ice & textures



Edge Finishes

- Saw Cut
- Polished edge
- Radius
- Chamfer
- Beveled

Fabrication Options

- Forming
- Bonding
- Drilling
- Routing
- CNC Machining
- Various surface finishes

Warranty

10 years

Care & Cleaning

To polish out scratches and restore original lustre, we recommend our R-Cast™ Care Kit to maintain your acrylic panels.

Avoid using alcohol-based solvents to clean the acrylic.

We recommend using standard soap and water.

Please contact us with any questions regarding cleaners.



R-Cast™ ice & textures

R-Cast™ Average Physical Properties

Property	ASTM Method	US Customary Units	Average Value	Metric Units	Average Value
MECHANICAL					
Tensile Strength	ASTM-D638	psi	10800	Kg/cm ²	759
Tensile Modulus	ASTM-D638	psi	450000	Kg/cm ²	31 x 10 ³
Tensile Elongation	ASTM-D638	%	4.0	-	-
Flexural Strength	ASTM-D790	psi	16000	Kg/cm ²	1125
Compression Strength	ASTM-D695	psi	17500	Kg/cm ²	1230
Shear Strength	ASTM-D732	psi	10000	Kg/cm ²	703
IZOD Impact Strength, notched @ 1/8"	ASTM-D256	ft-lbs/inch	0.414	J/m	22.1
Rockwell Hardness (M Scale)	ASTM-D785	-	103	-	-
Deformation Under Load @ 4,000 psi @ 73°F	ASTM-D621	%	0.85	-	-
OPTICAL					
Light Transmittance (0.1" nominal thickness)	ASTM-D1003	%	92	-	-
Haze	-	%	< 1	-	-
Refractive Index @ 77°F	ASTM-D542	-	1.49	-	-
THERMAL					
Heat Deflection Temperature	ASTM-D648	°F	226	°C	108
Coefficient of Expansion @ 60°F	ASTM-D696	in/in/°F	4.0 x 10 ⁻⁵	mm/mm/°C	7.2x10 ⁻⁵
MISCELLANEOUS					
Water Absorption, Equilibrium, 24 hrs @ 73°F	ASTM-D570	%	0.2	-	-
Specific Gravity	ASTM-D792	-	1.19	-	-

R-Cast™ ice & textures

Manufacturing

R-Cast™ ice & textures are monolithically cast from polymethyl methacrylate (PMMA) resin to strict internationally accepted structural standards.

Short Term Loading

Impact, live, and seismic loading conditions are short term and infrequent loading conditions. However, all R-Cast™ ice & texture panels can be designed to handle these conditions.

Safety Glazing

Meets ANSI Z 97.1 for safety glazing material used in buildings.
Approved for safety glazing according to model building codes.
Suitable for use in Consumer Products Safety Commission, Safety Standard for Architectural Glazing Material under 16 CFR 1201, Categories 1 & 11.

FDA Approval

R-Cast™ ice & textures are approved by the U.S. Food and Drug Administration for use as a surface suitable for food preparation.

R-Cast™ ice & textures

R = Resistant

R-Cast™ ice & textures withstands this substance for long periods and at temperatures up to 120 degrees F (49 degrees C).

LR = Limited Resistance

R-Cast™ ice & textures only resists the action of this substance for short periods at room temperature. The resistance for a particular application must be determined.

N = Non Resistant

R-Cast™ ice & textures is not resistant to this substance. It is either swelled, attached, dissolved or damaged in some manner.

Plastic materials can be attacked by chemicals in several ways. The methods of fabrication and/or conditions of exposure of R-Cast™ ice & textures as well as the manner in which the chemicals are applied, can influence final results even for "R" coded chemicals. Some of these factors are listed below.

Fabrication - Stress generated while sawing, sanding, machining, drilling, polishing, and/or forming.

Exposure - Length of exposure, stresses induced during the life of the product due to various loads, changes in temperatures, etc.

Chemical

Acetic Acid (5%)	R
Acetic Acid (Glacial)	N
Acetic Anhydride	LR
Acetone	N
Acrylic Paints & Lacquers	LR
Ammonia (aqueous solution)	R
Ammonium chloride (Saturated)	R
Ammonium Hydroxide (10%)	R
Butyl Acetate	N
Calcium Chloride (Saturated)	R
Calcium Hypochlorite	R
Carbon Tetrachloride	N
Cement	R
Chlorine Water	LR
Chloroform	N
Chromic Acid (40%)	N
Citric Acid (10%)	R
Cottonseed Oil (Edible)	R
Detergent Solution	R
Diesel Oil	R
Diethyl Ether	N
Dimethyl Formamide	N
Diocetyl Phthalate	N
Ethyl Acetate	N
Ethyl Alcohol (50%)	LR
Ethyl Alcohol (95%)	N
Ethylene Dichloride	N
Ethylene Glycol	R
2-Ethylhexyl Sebacate	R
Formaldehyde (40%)	R
Formic Acid (2%)	R
Formic Acid (40%)	LR
Gasoline (Regular, Leaded)	LR
Glycerine	R
Glycerol	R
Olive Oil	R
Oxygen	R
Ozone	R
Phenol Solution (5%)	N
Phosphoric Acid (10%)	R
Plaster of Paris	R
Soap Solution (Ivory)	R
Sodium Carbonate (2%)	R
Sodium Carbonate (20%)	R
Sodium Chloride (10%)	R
Sodium Hydroxide (1%)	R
Sodium Hydroxide (10%)	R

Code

Chemical

Ammonium Hydroxide (Conc.)	R
Aniline	N
Battery Acid	R
Benzaldehyde	N
Benzene	N
Bituminous Emulsion	N
Bromine	N
Butanol	LR
Glycol	R
Heptane	R
Hexane	R
Hot Bitumen	LR
Hydrochloric Acid	R
Hydrofluoric Acid (40%)	N
Hydrogen Peroxide (3%)	R
Hydrogen Peroxide (28%)	N
Isocotane	R
Isopropyl Alcohol	LR
Kerosene	R
Lacquer Thinner	N
Lactic Acid (80%)	LR
Methane	R
Methyl Alcohol (50%)	LR
Methyl Alcohol (100%)	N
Methyl Ethyl Ketone (MEK)	N
Methylene Chloride	N
Mineral Oil	R
Mortar	R
Motor Fuel (benzene-free)	R
Motor Fuel (with benzene)	N
Muriatic Acid (20%)	R
Nitric Acid (10%)	R
Nitric Acid (40%)	LR
Nitric Acid (Conc.)	N
Oil Paints (pure)	R
Sodium Hydroxide (60%)	R
Stearic Acid	R
Sulfuric Acid (3%)	R
Sulfuric Acid (30%)	R
Sulfuric Acid (Conc.)	N
Thinners (general)	N
Toluene	N
Trichloroethylene	N
Turpentine	LR
Urine	R
Water (Distilled)	R
Xylene	N

Code