POLYVANTIS

PRODUCT DATASHEET

LEXAN™ 903173U SHEET

DESCRIPTION

LEXAN™ 903173U is a LEXAN polycarbonate sheet with K12 prismatic texture on one side and a proprietary UV-resistant surface treatment on the polished side that protects it from weathering. LEXAN 903173U is backed by a ten-year limited warranty against loss of light transmission and breakage. Providing long-lasting light transmission over a wide range of weather conditions and environments, LEXAN 903173U sheet improves service life and reduces life-cycle material costs. The K12 texture consists of uniform diagonal 4.5mm female conical prisms, allowing the sheet to offer excellent efficiencies in light transmission while effectively reducing glare. LEXAN 903173U sheet is well suited for all types of vertical glazing and overhead applications such as skylights, covered walkways, and barrel vaults.

TYPICAL PROPERTY VALUES*

PROPERTY	TEST METHOD	UNITS	VALUE
PHYSICAL			
Specific Gravity	ASTM D792	-	1.20
Light Transmission#: Clear-—112	ASTM D1003	%	83
Light Transmission: White-—82379	ASTM D1003	%	60
Rockwell Hardness (M scale)	ASTM D785	-	70
Rockwell Hardness (R scale)	ASTM D785		118
Water Absorption, 24 hrs	ASTM D570	%	0.15
Water Absorption, Equilibrium (@ 73°F)	-	%	0.35
Chemical Resistance	ANSI Z26.1	-	Pass
MECHANICAL			
Tensile Strength, Yield	ASTM D638	psi	9,500
Tensile Modulus	ASTM D638	psi	340,000
Flexural Strength	ASTM D790	psi	13,500
Flexural Modulus	ASTM D790	psi	340,000
Compressive Strength	ASTM D695	psi	12,500
Izod Impact Strength Notched @ 0.118"	ASTM D256A	ft-lbs/in	12-16
Dart Impact Strength, 1" dia. Dart @ 73˚F	Internal Method	ft-lbs	>200
Dart Impact Strength, 1" dia. Dart @ 0˚F	Internal Method	ft-lbs	>200
THERMAL			
Coefficient of Thermal Expansion	ASTM D696	in/in/°F	3.75 x10^{-5}
Heat Deflection Temperature @ 264	ASTM D648	°F	270
@ 66 psi			280
FLAMMABILITY			
Horizontal Burn (Flame Spread) AEB	ASTM D635	in	<1
UL Flammability (0.060" min.)	UL94		HB[1]

♦ These typical values are not intended for specification purposes. If minimum certifiable properties are required please contact your local POLYVANTIS representative.

\# Light transmission values may vary by + or - 4%

1 Expected value based on this being a LEXAN 9034, XL10 equivalent product

PRODUCT AVAILABILITY

LEXAN™ 903173U sheet may be produced in Clear (112) or White Translucent (82379); 0.125 inch gauge, 48 inches by 96 inches sheet. Masking: Top side (K12 Texture)- None; Bottom side (UV, polished)- poly stick clear. Other sizes may be available upon request.

UV PROTECTION

LEXAN 903173U sheet has a proprietary UV protected surface on the polished side, giving excellent durability to outdoor weathering. When properly installed and maintained, the LEXAN sheet is backed by a 10 year warranty against loss of light transmission and breakage.

CHEMICAL RESISTANCE

LEXAN 903173U sheet has sufficient resistance to most mineral oils, greases, aliphatic hydrocarbons, and acids under low or moderate stress levels. Specific application-related testing is always advised, especially where the sheet may be in contact with aggressive chemicals.

ASSEMBLING / PAINTING

Parts made from LEXAN 903173U sheet can be assembled with plastics, metals, rubber and other materials using many types of adhesive bonding, welding and mechanical fastening techniques. Since some of these materials can cause environmental stress cracking, please consult SABIC Innovative Plastics, for advice on specific applications.

CODE COMPLIANCE

Underwriters Laboratories LEXAN 903x Sheet is listed as a Burglary-Resisting Glazing Material according to UL Standard 972.

UL File Number: E539157

POLYVANTIS

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LEXAN™ POLYCARBONATE FILM & SHEET Tough, Virtually Unbreakable

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