

LEXAN™ EXTRITE™-1 SHEET

PRODUCT DATASHEET

DESCRIPTION

LEXAN™ EXTRITE™-1 sheet is a transparent UV and abrasion resistant formable sheet grade. This product is especially developed for extreme outdoor weather conditions. The intrinsic properties of LEXAN polycarbonate combined with a one side protected surface, result in improved abrasion, chemical and UV resistance. This is backed by a unique fifteen (15) year limited warranty against breakage, yellowing and loss of light transmission.

TYPICAL PROPERTY VALUES

PROPERTY	TEST METHOD	UNITS	VALUE
PHYSICAL			
Specific Gravity	ASTM D792	-	1.20
Sound Transmission. STC Rating (36" x 84")	ASTM E9070	-	
@0.118"			25
@0.177"			29
@0.236"			31
Light transmission	ASTM D1003	%	88
MECHANICAL			
Tensile Strength @Yield	ASTM D638	psi	9,300
Tensile Modulus	ASTM D638	psi	345,000
Flexural Strength	ASTM D790	psi	14,500
Flexural Modulus	ASTM D790	psi	360,000
Flexural Endurance @ 1.800 Cycles/Min. 73°F 50% RH	ASTM D671	psi	1,000
Compressive Strength @yield	ASTM D695	psi	10,400
Elongation	ASTM D638	%	85
Izod Impact Strength, up to 125mils, Notched Drop	ASTM D256A	ft-lbs-in	12-18
Dart Impact Strength, 1" dia. Dart@ 73°F	SABIC Test#	ft-lbs	>200
@0°F			>200
Taber haze - 100 cycles, 500 gram, CS-10F ΔHaze	ASTM D1044	%	2.3
Taber haze - 500 cycles, 500 gram, CS-10F ΔHaze	ASTM D1044	%	6
Taber haze - 1000 cycles, 500 gram, CS-10F ΔHaze	ASTM D1044	%	< 15
Metal wool test – 10 cycles ΔHaze	In house	%	1.3
Sandrieseltest (Sand abrasion test) – ΔHaze	DIN 52348:1985	%	1
THERMAL			
Coefficient of thermal expansion	ASTM D696	°in/in/°F	3.75 x 10 ⁻⁵
Thermal shrinkage	SABIC Test	%	1
Heat Deflection Temperature @264 psi	ASTM D648	°F	
@66 psi			270
Flammability			
Ignition Temperature Flash	ASTM D1929	°F	854 (for 0.118")
Self			1027 (for 0.118")
UL Flammability – E45329	UL94HB	Pass	0.118" – 0.236"

◆ These property values have been derived from LEXAN™ resin data for the material used to produce this sheet product. Variation within normal tolerances are possible for various colors. These typical values are not intended for specification purposes. If minimum certifiable properties are required, please contact your local SABIC, Functional Forms representative.

Measured by dropping a 5-pound dart (1" dia. tip) from a height of 40 feet.

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SURFACE PROTECTION

EXTRITE1 sheet has a one side abrasion/chemical surface protection and on the opposite side a UV- protected surface, giving excellent durability to sustain outdoor weathering. This superior UV-/abrasion/chemical- resistance and toughness of EXTRITE1 sheet is backed by a 15 year limited written warranty against breakage, yellowing and loss of light transmission.

LIGHT TRANSMISSION

Transparent EXTRITE1 sheet have excellent light transmission, between 87 and 90%. EXTRITE1 sheet is available in translucent/clear version and in opal white, bronze and grey colour. EXTRITE1 is essential opaque to all wavelengths below 385 nanometres. This useful shielding property can help prevent discoloration of sensitive materials placed under or EXTRITE1 sheet.

FORMABLE SHEET

EXTRITE1 sheet is thermoformable and can be formed into the desired geometry whilst retaining the UV resistant protection specially developed for weather resistant applications. This can be done under defined conditions. For more information, please contact your SABIC representative.

CLEANING

For cleaning instructions, consult guidelines. Do not use abrasive or high alkaline cleaners; never scrape the sheet with squeegees, razor blades or other sharp instruments. Do not clean EXTRITE1 sheet in hot sun or at elevated temperatures. Afterwards, a warm final wash should be made, using a mild soap solution and ending with a thorough rinsing with cold water.

CHEMICAL RESISTANCE

EXTRITE1 sheets provide an improved chemical resistance compared to traditional polycarbonate sheet. Especially to chemicals like kerosene and xylene. In applications where the product will come into contact with aggressive chemicals, specific testing of the material will always be required.

FIRE TEST PERFORMANCE

EXTRITE1 sheet has good fire performance against many national fire codes dependent on thickness and color; please check with the local sales office for details.

Product Availability:

Product Code:	EXTRITE1
Availability:	49.21" Width, 39.37"-118" Length. Longer lengths on request.
Thicknesses:	0.080" –0 .236"
Standard Colors:	Clear -112, Opal - WH7D287O, WH4D348O, Bronze - 5109 & Grey - GY6E575T
SPV (standard price volume):	2200 lb.

CONTACT US:

SABIC CORPORATE HQ

PO Box 5101
Riyadh 11422
Saudi Arabia
T +966 (0) 1 225 8000
F +966 (0) 1 225 9000
E info@sabic.com

AMERICAS

SABIC
Functional Forms
2500 CityWest Boulevard
Suite 100
Houston, TX 77042
USA
Toll-free (800) 323 3783
F (888) 443 2033
E spinside.sales@sabic.com

EUROPE

SABIC
Functional Forms
Plasticslaan 1
4612 PX
Bergen op Zoom
The Netherlands
T +31 (0)164 293684
F +31 (0)164 292272
E ff.info@sabic.com

PACIFIC

SABIC
Functional Forms
2550 Xiupu Road
Pudong
201319 Shanghai
China
T +86 21 3222 4500
F +86 21 6289 8998
E ff.info@sabic.com

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