

# LEXAN™ EXTRITE™ SHEET

## PRODUCT DATASHEET

### DESCRIPTION

LEXAN™ EXTRITE™ sheet is a transparent UV and abrasion resistant sheet grade. This product is especially developed for extreme outdoor weather conditions. For example sandstorms and high solar energy areas. The intrinsic properties of LEXAN polycarbonate combined with a one - (EXTRITE1) or two side (EXTRITE2) 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
<b>PHYSICAL</b>			
Density	ISO 1183	g/cm <sup>3</sup>	1.20
Water absorption, 50% RH, 23 °C	ISO 62	%	0.15
Water absorption, saturation, 23°C	ISO 62	%	0.35
<b>MECHANICAL</b>			
Yield stress 50 mm/min	ISO 527	MPa	>60
Yield strain 50 mm/min	ISO 527	%	6
Nominal strain at break 50 mm/min	ISO 527	%	>100
Tensile modulus 1 mm/min	ISO 527	MPa	2300
Flexural strength 2 mm/min	ISO 178	MPa	90
Flexural modulus 2 mm/min	ISO 178	MPa	2300
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
Sandriestest – ΔHaze	DIN 52348:1985	%	1
<b>THERMAL</b>			
Vicat softening temperature, rate B/120	ISO 306	°C	145
Temperature of deflection under load (type A), 1.8 MPa, flat	ISO 75-2	°C	127
Thermal conductivity	ISO 8302	W/m.°C	0.2
Coefficient of linear thermal expansion, 23-55°C	ISO 11359-2	1/°C	7x10 <sup>-5</sup>
Ball pressure test 125 ±2°C	IEC 60695-10-2	-	Pass
<b>ELECTRICAL</b>			
Volume resistivity	IEC 60093	Ohm.cm	>10 <sup>15</sup>
Dielectric strength, in oil, 3.2 mm	IEC 60243-1	kV/mm	18

- 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. All values are measured at least after 48 hours storage at 23°C/50% relative humidity. All properties are measured on injection molded samples. All samples are prepared according ISO 294.

PROPERTY - SHEET	TEST METHOD	UNITS	VALUE
<b>Building &amp; Construction</b>			
Fire rating - EXTRITE	EN13501-1		B,s1,d0 (4-6mm)
UL listing -EXTRITE1: <a href="#">E45329</a>			
Mechanical – Neutral Salt spray test	ISO 9227:2017 ASTM B117:2019 DIN 50021		Pass (0 defects)

™ Trademark of SABIC.

## SURFACE PROTECTION

LEXAN™ EXTRITE™ sheet has two sided UV protection and a one (EXTRITE1) or two (EXTRITE2) sided - abrasion/chemical surface protection, giving excellent durability to sustain outdoor weathering. This superior protection and toughness of LEXAN EXTRITE sheet is backed by a 15 year limited written warranty against breakage, yellowing and loss of light transmission.

## LIGHT TRANSMISSION

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

## FORMABLE SHEET

LEXAN 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.

LEXAN EXTRITE2 can be cold formed into gentle curves of 175 times the sheet thickness. It can also be cold line bent under an angle of a maximum of 90° using ordinary workshop equipment.

## 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 LEXAN EXTRITE sheet products 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

LEXAN EXTRITE 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

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

## SOUND INSULATION (noise reduction dB)

Thickness (mm)	ISO 717-1 (R <sub>w</sub> )	EN 1793-2 (DL <sub>R</sub> )
8	32	28
9.5	33	29
12	34	30
15	35	32

## SAFETY

The processing guidance given in this documentation is given in good faith and the trust that in all cases you wear the correct Personal Protective Equipment (PPE), e.g. helmet, proper gloves, safety goggles etc. to safely fabricate, e.g. (but not limited to) sawing, cutting, forming our sheets and films. In all cases you should follow local and national regulations around the wear of PPE's prescribed or mandatory to perform these tasks in a safely manor.

## PRODUCT AVAILABILITY

LEXAN EXTRITE SHEET				Color & standard price volume (kg)				
Grade	Gauge (mm)	Standard width (mm)	Availability (mm)	112 clear	5109 bronze	GY6E575T grey	WH7D2870 white LT50%	WH4D3480 white LT25%
EXTRITE1	4	1250	1250-3050	1000	1000	1000	1000	1000
EXTRITE1	5-6*	1250	1250-3050	1000	1000	1000	1000	1000
EXTRITE1	4-6	2050	1250-6500	1000	1000	1000	1000	1000
EXTRITE1	8	2000	1250-6500	1000	1000	1000	1000	1000
EXTRITE1	9.5-12	2000	1250-6500	1000	1000	1000	n/a	n/a
EXTRITE1	15	2000	1250-6500	1000	n/a	n/a	n/a	n/a

\* CTS production, with max. length of 3500MM

Grade	Gauge (mm)	Standard width	Availability (mm)	112 clear	5109 bronze	GY6E575T grey	WH7D2870 white LT50%	WH4D3480 white LT25%
EXTRITE2	2-6	2050	1250-6500	1000	1000	1000	1000	1000
EXTRITE2	8	2000	1250-6500	1000	1000	1000	1000	1000
EXTRITE2	9.5-12	2000	1250-6500	1000	1000	1000	n/a	n/a
EXTRITE2	15	2000	1250-6500	1000	n/a	n/a	n/a	n/a

Longer lengths on request

Check out our website for more information -



## CONTACT US:

### SABIC CORPORATE HQ

PO Box 5101  
Riyadh 11422  
Saudi Arabia  
T +966 (0) 1225 8000  
E info@sabic.com

### AMERICAS

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

### EUROPE

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

### PACIFIC

SABIC  
Functional Forms  
2550 Xiupu Road  
Pudong  
201319 Shanghai  
China  
T +86 20 2866 6168  
E ff.info@sabic.com

DISCLAIMER: THE MATERIALS, PRODUCTS AND SERVICES OF SAUDI BASIC INDUSTRIES CORPORATION (SABIC) OR ITS SUBSIDIARIES OR AFFILIATES ("SELLER") ARE SOLD SUBJECT TO SELLER'S STANDARD CONDITIONS OF SALE, WHICH ARE AVAILABLE UPON REQUEST. INFORMATION AND RECOMMENDATIONS CONTAINED IN THIS DOCUMENT ARE GIVEN IN GOOD FAITH. HOWEVER, SELLER MAKES NO EXPRESS OR IMPLIED REPRESENTATION, WARRANTY OR GUARANTEE (i) THAT ANY RESULTS DESCRIBED IN THIS DOCUMENT WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN OR APPLICATION INCORPORATING SELLER'S MATERIALS, PRODUCTS, SERVICES OR RECOMMENDATIONS. UNLESS OTHERWISE PROVIDED IN SELLER'S STANDARD CONDITIONS OF SALE, SELLER SHALL NOT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS, SERVICES OR RECOMMENDATIONS DESCRIBED IN THIS DOCUMENT. Each user is responsible for making its own determination as to the suitability of Seller's materials, products, services or recommendations for the user's particular use through appropriate end-use and other testing and analysis. Nothing in any document or oral statement shall be deemed to alter or waive any provision of Seller's Standard Conditions of Sale or this Disclaimer, unless it is specifically agreed to in a writing signed by Seller. Statements by Seller concerning a possible use of any material, product, service or design do not, are not intended to, and should not be construed to grant any license under any patent or other intellectual property right of Seller or as a recommendation for the use of any material, product, service or design in a manner that infringes any patent or other intellectual property right.

SABIC and brands marked with ™ are trademarks of SABIC or affiliates.  
© Copyright 2023 All rights reserved.

† Any brands, products or services of other companies referenced in this document are the trademarks, service marks and/or trade names of their respective holders.



LEXAN is a trademark of SABIC.