

LEXAN™ 8010SG FILM

PRODUCT DATASHEET

DESCRIPTION

LEXAN™ 8010SG uncoated polycarbonate sheet offers excellent clarity, good heat resistance, high gloss surface finish, superior impact resistance and enhanced UV stability. LEXAN 8010SG sheets may be thermoformed, pressure formed, cold formed or use in flat applications.

TYPICAL PROPERTY VALUES

PROPERTY	ASTM TEST METHOD	UNITS USCS	VALUE	ISO TEST METHOD	UNITS (SI)	VALUE
MECHANICAL						
Tensile Strength @ Yield	ASTM D882	psi	8500	ISO 527	MPa	62
Tensile Strength Ultimate	ASTM D882	psi	9000	ISO 527	MPa	65
Tensile Modulus (0.43mm)	ASTM D882	psi	300000	ISO 527	MPa	2500
Tensile Elongation at Break	ASTM D882	%	100-150	ISO 527	%	100-150
Gardner Impact Strength at 0.03" (0.75mm)	ASTM D3029	ft-lb	23	ISO 6603-1	J	31
Puncture Resistance (Dynatup)	ASTM D3763	ft-lb	9			
Poisson's Ratio	ASTM E132	-	0.37			
THERMAL						
Coefficient of Thermal Conductivity	ASTM D5470	Btu/hr/ft ² /°F/in	1.35		W/m ² K	0.2
Coefficient of Thermal Expansion	ASTM E831	(x10 ⁻⁵ /°F)	3.2	ISO 11359	(x10 ⁻⁵ /°C)	5.8
Specific Heat @40°F (4°C)	ASTM E1269	Btu/lb/°F	0.3		KJ/Kg-°C	1.25
Glass Transition Temperature	ASTM D3417 / D3418	°F	307	ISO 11357	°C	153
Vicat Softening Temperature, B	ASTM 1525-00 modified	°F	323			160
Heat Deflection Temp. by TMA at 1.8 Mpa		°F	290	ISO 75 Modified	°C	145
Brittleness Temperature	ASTM D746	°F	-211		°C	-135
PHYSICAL						
Density	ASTM D792	slug/ft ³	2.3	ISO 1183	kg/m ³	1200
Water Absorption, 24 hrs.	ASTM D570	% change	0.35	ISO 62	% change	0.35
Rockwell Hardness M scale	ASTM D785	-	70			
Rockwell Hardness R scale	ASTM D785	-	118			
Pencil Hardness	ASTM D3363	-	B-HB			
Taber Abrasion	ASTM D1044	Delta Haze	28			
Surface Energy	ASTM D5946-01	-	34			
Surface Tension	Dyne Pens	Dyne	38-40			

PROPERTY	ASTM TEST METHOD	UNITS USCS	VALUE	ISO TEST METHOD	UNITS (SI)	VALUE
OPTICAL						
Refractive Index @77°F (25°C)	ASTM D542A	-	1.6			
Light Transmission	ASTM D1003	%	90			
Haze	ASTM D1003	-	0.4			
ELECTRICAL						
Dielectric Constant						
@ 60 Hz	ASTM D150	-	2.3	IEC 60250	-	2.3
@ 1 MHz	ASTM D150	-	2.3	IEC 60250	-	2.3
Dissipation Factor						
@ 60 Hz	ASTM D150	-	0.001	IEC 60250	-	0.001
@ 1 MHz	ASTM D150	-	0.006	IEC 60250	-	0.006
Volume Resistivity	ASTM D257	Ω-cm	8.65E+16	IEC 60093	Ω-cm	8.65E+16
Surface Resistivity	ASTM D257	Ω/square	5.24E+15	IEC 60093	Ω/square	5.24E+15
Arc Resistance, Tungsten Electrodes	ASTM D495	s	70			

◆ These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact your local SABIC representative or the SABIC Quality Services Department.™ Trademark of SABIC.

MANUFACTURING SPECIFICATIONS

NOMINAL GAUGE RANGES

0.03 – 0.06 inches

UL V-2 at 0.03" Gauge. File Number E121562

CONTACT US:

Middle East and Africa

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

Email

sfs.info@sabic-ip.com

Americas

Specialty Film & Sheet
1 Plastics Avenue
Pittsfield, MA 01201
USA
T 800 323 3783 (toll free)
T +1 413 448-6655
F (888) 443 2033
E sales.inside@sabic-ip.com

Europe

Specialty Film & Sheet
Plasticslaan 1
4612 PX
Bergen op Zoom
The Netherlands
T +31 (0)164 293678
F +31 (0)164 293272
E sfs.info@sabic-ip.com

Asia Pacific

Specialty Film & Sheet
2550 Xiupu Road
Pudong
201319 Shanghai
China
T +86 21 3222 4500
F +86 21 6289 8998
E sfs.info@sabic-ip.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 its subsidiaries or affiliates.
© 2015 Saudi Basic Industries Corporation (SABIC). All Rights Reserved.

¹Any brands, products or services of other companies referenced in this document are the trademarks, service marks and/or trade names of their respective holders.

www.sabic.com/sfs

