

# LEXAN™ 8B28 FILM

## PRODUCT DATASHEET

### DESCRIPTION

LEXAN™ 8B28 film is a one side velvet, one side fine matt translucent or opaque white polycarbonate film featuring high heat resistance and superior dimensional stability. It offers good printability and ease of processing (ie die-cutting, embossing, bending, folding, thermoforming and hydroforming). LEXAN 8B28 film can be used in wide variety of applications such as lamp shades, lamp diffusers for indirect lighting, exhibition stand panels, smart cards, labels and dials.

### TYPICAL PROPERTY VALUES

PROPERTY	ASTM TEST METHOD	UNITS (USCS)	VALUE	ISO TEST METHOD	UNITS (SI)	VALUE
<b>MECHANICAL</b>						
Tensile Strength @ Yield	ASTM D882	psi	8500	ISO 527	MPa	63
Ultimate	ASTM D882	psi	9000	ISO 527	MPa	65
Tensile Modulus	ASTM D882	psi	300000	ISO 527	MPa	>2000
Tensile Elongation at Break	ASTM D882	%	100-160	ISO 527	%	>100
Gardner Impact Strength at 0.03" (0.75 mm)	ASTM D3029	ft-lb	23	ISO 6603-1	J	31
Tear Strength						
Initiation	ASTM D1004	lb/mil	1.4-1.8		kN/m	245
Propagation	ASTM D1922	g/mil	30-55		kN/m	10-20
Puncture Resistance (Dynatup)	ASTM D3763	ft-lb	9		J	12
Fold Endurance (MIT)						
0.010" (0.25 mm)	ASTM D2176-69	double folds	80			
0.020" (0.50 mm)	ASTM D2176-69	double folds	NA			
<b>THERMAL</b>						
Coefficient of Thermal Conductivity	ASTM D5470	Btu/hr/ft <sup>2</sup> /°F/in	1.35		W/m°K	0.2
Coefficient of Thermal Expansion	ASTM E831	(x10 <sup>-5</sup> /°F)	3.2	ISO 11359	(x10 <sup>-5</sup> /°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	148
Vicat Softening Temperature, B	ASTM 1525-00 modified	°F	312		°C	144
Heat Deflection Temp. by TMA at 1.8 Mpa		°F	290	ISO 75 Modified	°C	127
Shrinkage at 302°F (150°C)	ASTM D1204	%	1.10		%	1.40
Brittleness Temperature	ASTM D746	°F	-211		°C	-135
<b>PHYSICAL</b>						
Density	ASTM D792	slug/ft <sup>3</sup>	2.3	ISO 1183	kg/m <sup>3</sup>	1200
Water Absorption, 24 hrs.	ASTM D570	% change	0.35	ISO 62	% change	0.35
Energy(1 <sup>st</sup> surface/ 2 <sup>nd</sup> surface)	ASTM D5946-01	-	35/35			
Surface Tension	Dyne Pens	Dyne	>34			
<b>OPTICAL</b>						
Refractive Index @77°F (25°C)	ASTM D542A	-	NA			
Light Transmission	ASTM D1003	%	45			
Yellowness Index	ASTM D1925	%	19			
Haze	ASTM D1003	%	103			
Gloss over Flat Black min/max @ 60°	ASTM D523-60	-	See chart	ISO 2813	-	See chart

◆ 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. Reported values are based on 0.250 mm (0.010") thickness film unless otherwise noted.

™ Trademark of SABIC.

## MANUFACTURING SPECIFICATIONS

### COLOR 82728 (TRANSLUCENT WHITE)

NOMINAL GAUGE RANGES	MIN./MAX LIMIT OF NOMINAL
0.007-0.030" (0.175-0.500mm)	± 5%

### COLOR 805085 (OPAQUE WHITE)

NOMINAL GAUGE RANGES	MIN./MAX LIMIT OF NOMINAL
0.010-0.030" (0.250-0.750 mm)	± 5%

### GLOSS BY GAUGE: (ASTMD 523-60)

	GAUGE	ANGLE		MATTE
	0.010"	60°	Min	15
	(0.250mm)		Max	35
	0.025"	60°	Min	20
<b>8B28</b>	(0.375mm)		Max	40
	0.020 - 0.031"	60°	Min	25
	(0.500 - 0.790mm)		Max	45

### GLOSS BY GAUGE: (ASTMD 523-60)

	GAUGE	ANGLE		MATTE
	0.010-0.015"	60°	Min	4
	(0.250-0.375 mm)		Max	6.5
	0.020"	60°	Min	5
<b>8B28</b>	(0.500mm)		Max	9
	0.020 - 0.031"	60°	Min	6
	(0.500 - 0.790mm)		Max	10

## 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 293272  
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

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 <sup>TM</sup> are trademarks of SABIC or affiliates.  
© Copyright 2020. All rights reserved.

<sup>†</sup> 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.

