

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
Mechanical						
Tensile Strength @ Yield	ASTM D882	psi	8500	ISO 527	MPa	62
Ultimate	ASTM D882	psi	9000	ISO 527	MPa	65
Tensile Modulus	ASTM D882	psi	300000	ISO 527	MPa	2506
Tensile Elongation at Break	ASTM D882	%	100-160	ISO 527	%	100-154
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
Propogation	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			
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	312		°C	156
Heat Deflection Temp. by TMA at 1.8 Mpa		°F	290	ISO 75 Modified	°C	145
Shrinkage at 302°F (150°C)	ASTM D1204	%	1.10		%	1.40
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
Energy(1 st surface/ 2 nd surface)	ASTM D5946-01	-	35/35			
Surface Tension(1 st surface/ 2 nd surface)	Dyne Pens	μ	>44/40-42			
Optical						
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

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%

- These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact your local SABIC Innovative Plastics, Specialty Film & Sheet representative or the Quality Services Department. Reported values are based on 0.250 mm (0.010") thickness film unless otherwise noted.

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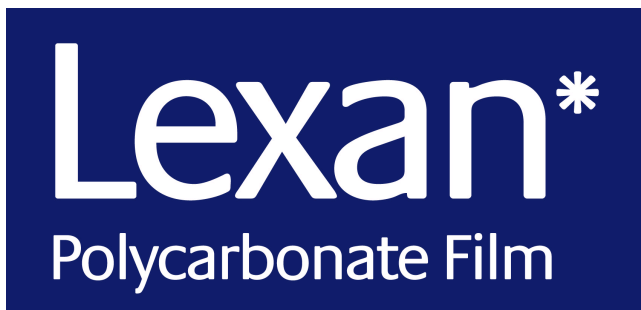
Lexan*

Gloss by Gauge: (ASTMD 523-60)

	Gauge	Angle	Matte	
8B28	0.010" (0.250mm)	60°	Min Max	15 35
	0.025" (0.375mm)	60°	Min Max	20 40
	0.020 - 0.031" (0.500 - 0.790mm)	60°	Min Max	25 45

Gloss by Gauge: (ASTMD 523-60)

	Gauge	Angle	Velvet	
8B28	0.010-0.015" (0.250-0.375 mm)	60°	Min Max	4 6.5
	0.020" (0.500mm)	60°	Min Max	5 9
	0.020 - 0.031" (0.500 - 0.790mm)	60°	Min Max	6 10



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Americas:
SABIC Innovative Plastics
Specialty Film & Sheet
One Plastics Avenue
Pittsfield, MA 01201
USA
Tel. (1) (413) 448 7110
Fax. (1) (413) 448 5573

Europe:
SABIC Innovative Plastics
Specialty Film & Sheet
Plasticslaan 1
NL - 4612 PX Bergen op Zoom
The Netherlands
Tel. (31) (164) 292911
Fax. (31) (164) 292940

Pacific:
SABIC Innovative Plastics
Specialty Film & Sheet
1468 Nanjin Road (W)
26th Floor, United Plaza
200040 Shanghai, China
Tel. (86) 21 3222 4500
Fax. (86) 21 6289 8998

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