LEXAN™ 8B2MBD FILM

PRODUCT DATASHEET

DESCRIPTION

LEXAN™ 8B2MBD is textured polycarbonate film use typically for signage, menu boards, overlays, labels and various graphic applications. It offers high temperature resistance, excellent dimensional stability, as well as good printability without pretreatment making it very suitable for multi-layer printing applications. It can be screen printed using traditional solvent based or water based inks, as well as UV or infrared drying inks and offers ease of processing for thermoforming, embossing, die-cutting, hydro-forming and bending. 8B2MBD texture offers mar resistance, and can be used over LEDs (light-emitting devices).

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	2100
Tensile Elongation at Break	ASTM D882	%	100-156	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	60			
0.020" (0.50 mm)	ASTM D2176-69	double folds	20			
THERMAL						
Coefficient of Thermal Conductivity	ASTM D5470	Btu/hr/ft2/°F/in	1.35		W/m°K	0.2
Coefficient of Thermal Expansion	ASTM E831	(x10-5/°F)	3.2	ISO 11359	($x10^{-5}$/°C)	7
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		°C	150
Heat Deflection Temp. by TMA at 1.8 Mpa		°F	290	ISO 75 Modified	°C	135
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
Surface Roughness						
1st surface (Ra)	ASTM D5946	µm	0.99			
2nd surface (Ra)	ASTM D5946	µm	1.30			

PROPERTY	ASTM TEST METHOD	UNITS (USCS)	VALUE	ISO TEST METHOD	UNITS (SI)	VALUE
Gloss 1st surface @ 20°	ASTM D523	-	1.1			
@ 60°	ASTM D523	-	3.0			
@ 85°	ASTM D523	-	6.0			
Gloss 2nd surface @ 20°	ASTM D523	-	1.7			
@ 60°	ASTM D523	-	9.0			
@ 85°	ASTM D523	-	17.4			

◆ 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.

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MANUFACTURING SPECIFICATIONS

NOMINAL GAUGE RANGES	MIN./MAX LIMIT OF NOMINAL
0.003" (0.075 mm)	± 10%
0.005 - 0.007" (0.125 - 0.175mm)	± 8%
0.010-0.015" (0.250-0.375 mm)	± 5%
0.020" (0.500 mm)	± 3

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