POLYVANTIS

PRODUCT DATASHEET

LEXAN™ UV8B35 FILM

DESCRIPTION

LEXAN™ UV8B35 is a polycarbonate film with improved UV resistance featuring a velvet finish on one side and a matte finish on the other. It provides high temperature resistance, excellent dimensional stability, and good printability without the need for pretreatment-—making it ideal for multi-layer printing in applications such as overlays, floor graphics, high-performance labels, and in-mold decoration. The film is compatible with screen printing using both traditional solvent-based and water-based inks, and enables easy processing for thermoforming, embossing, die-cutting, hydroforming, and bending.

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 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”	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	double folds	60			
0.020” (0.50 mm)	ASTM D2176	double folds	20			
THERMAL						
Coefficient of Thermal Expansion	ASTM E831	($x10^{-5}$/°F)	3.2	ISO 11359	($x10^{-5}$/°C)	7
Glass Transition Temperature	ASTM D3417	°F	300	ISO 11357	°C	150
Heat Deflection Temperature, at 1.8	ASTM D648	°F	265	ISO 75	°C	130
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, Ra, fine mate side	-	microinch	35	-	micron	0.9
Surface Roughness, Ra, velvet side	-	microinch	137	-	micron	3.5
Surface Energy (1^{st} surface/ 2^{nd}	Dyne Pens	Dyne	37 / 30			

PROPERTY	ASTM TEST METHOD	UNITS (USCS)	VALUE	ISO TEST METHOD	UNITS (SI)	VALUE
OPTICAL						
Light Transmission	ASTM D1003	%	> 85			
Haze	ASTM D1003	%	> 90			
Change of Yellowness Index change after 1000 hrs. Xenon Arc (ISO 11341)	ASTM E313	-	< 3			
Change of Yellowness Index change after 3000 hrs. Xenon Arc (ISO 11341)	ASTM E313	-	< 10			
Gloss fine matte side, 60°	ASTM D523-60	GU	3			
Gloss velvet side, 60°	ASTM D523-60	GU	9			

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

THICKNESS SPECIFICATIONS

NOMINAL GAUGE RANGES	MIN./MAX LIMIT OF NOMINAL
0.005 - 0.009" (0.127 - 0.229 mm)	± 8%
0.010 - 0.015" (0.254 - 0.381 mm)	± 5%
0.020 - 0.030" (0.508 - 0.760	± 3%

POLYVANTIS

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polyvantis.com

LEXAN™ POLYCARBONATE FILM & SHEET Tough, Virtually Unbreakable

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