POLYVANTIS

PRODUCT DATASHEET

LEXAN™ UV8010 FILM

DESCRIPTION

LEXAN™ UV8010 polycarbonate film combines improved resistance to UV with the key properties of standard 8010 film, including excellent clarity across all thicknesses, high heat resistance, superior dimensional stability and good printability without the need for pretreatment-—making it well-suited for multi-layer printing in applications such as overlays, floor graphics, high-performance labels, and in-mold decoration. The film supports screen printing with both traditional solvent-based and water-based inks, and offers easy processing for thermoforming, embossing, die-cutting, hydroforming, and bending. It also features a high-gloss finish.

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	63
Tensile Modulus	ASTM D882	psi	30000	ISO 527	MPa	>2000
Tensile Elongation at Break	ASTM D882	%	100-	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
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 Tension	Dyne Pens	Dyne	>34	-		
OPTICAL						
Light Transmission	ASTM D1003	%	> 90			
Haze	ASTM D1003	%	<0.5			
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			

- 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 0.250 mm (0.010") Thickness unless otherwise noted

THICKNESS SPECIFICATIONS

NOMINAL GAUGE RANGES	MIN./MAX LIMIT OF NOMINAL
0.007 - 0.009" (0.178 - 0.229 mm)	± 10%
0.010 - 0.015" (0.254 - 0.381 mm)	± 5%
0.020 - 0.030" (0.508 - 0.760	± 3%

POLYVANTIS

Polycarbonate products are sold globally under the trademark LEXAN™ Film & Sheet, owned by SABIC or its subsidiaries or affiliates.

polyvantis.com

LEXAN™ POLYCARBONATE FILM & SHEET Tough, Virtually Unbreakable

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