POLYVANTIS

PRODUCT DATASHEET

LEXAN™ DP8A35 FILM

DESCRIPTION

LEXAN™ DP8A35 is a one side primed film designed for increased digital UV ink adhesion under laminating adhesive exposure where other polycarbonate film solutions may not perform as needed. Due to rapid development of ink adhesion, post drying of the printed artwork prior to adhesive lamination can be eliminated (with many digital ink sets) thus reducing production cycle time. It offers high temperature resistance, excellent dimensional stability, as well as good printability making it very suitable for multi-layer printing for applications such as overlays, floor graphics, high-performance labels and in-mold decoration. It is optimized for UV inks and offers ease of processing for thermoforming, embossing, die-cutting, hydro-forming 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
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	%	100-160	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 D2176-69	double folds	130			
0.020" (0.50 mm)	ASTM D2176-69	double folds	35			
THERMAL						
Coefficient of Thermal Conductivity	ASTM D5470	Btu/hr/ft^2/°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	°F	323		°C	150
Heat Deflection Temp. by TMA at 1.8		°F	290	ISO 75	°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 (RMS)	ASME B46-1	µ	100			

Surface Energy(1st surface/ 2nd	ASTM D5946-01	-	34/34			
Surface Tension(1st surface/ 2nd	Dyne Pens	Dyne	40-42/38-			
PROPERTY	**ASTM TEST METHOD**	**UNITS (USCS)**	**VALUE**	**ISO TEST METHOD**	**UNITS (SI)**	**VALUE**
OPTICAL						
Refractive Index @77°F (25°C)	ASTM D542A	-	1.6			
Light Transmission	ASTM D1003	%	90			
Yellowness Index	ASTM D1925	%	0.9			
Haze	ASTM D1003	%	42			
Gloss over Flat Black min/max @ 60°	ASTM D523-60	-	See chart	ISO 2813	-	See chart
ELECTRICAL						
Dielectric Strength at 23°C in oil, short time, 250 micron				IEC 243-1	kV/mm	67
Relative Permittivity				IEC 250		
50 Hz					-	2.99
1 MHz					-	2.93
Dissipation Factor				IEC 250		
50 Hz					-	0.0009
1 MHz					-	0.010
Volume Resistivity				IEC 93	Ohm.cm	1015
Surface Resistivity				IEC 93	Ohm	
Arc Resistance, Tungsten	ASTM D495	S	120			

- 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 film unless otherwise noted.

POLYVANTIS

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LEXAN™ POLYCARBONATE FILM & SHEET Tough, Virtually Unbreakable

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