POLYVANTIS

PRODUCT DATASHEET

LEXAN™ 2A13-NA9H015T FILM

DESCRIPTION

LEXAN™ 2A13-NA9H015T film is a transparent polished / fine matte co-polymer polycarbonate film that offers excellent clarity, high heat resistance, and superior dimensional stability in all thicknesses. LEXAN™ 2A13-NA9H015T can be printed using traditional solvent-based inks as well as IR and UV curing inks. It offers ease of processing for thermoforming, hydro-forming, embossing, die-cutting 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	10900	ISO 527	MPa	76.6
Ultimate	ASTM D882	psi	9200	ISO 527	MPa	62.5
Tensile Modulus	ASTM D882	psi	400000	ISO 527	MPa	2997
Tensile Elongation at Break	ASTM D882	%	22.8	ISO 527	%	9
Tear Strength Initiation	ASTM D1004	N	102			
THERMAL						
Coefficient of Thermal Expansion						
CTE -20~170°C, crossflow	ASTM E831	($x10^{-5}$/°F)	3.8	ISO 11359-2	($x10^{-5}$/°C)	8.2
CTE -20~170°C, inflow	ASTM E831	($x10^{-5}$/°F)	3.9	ISO 11359-2	($x10^{-5}$/°C)	7.4
Glass Transition Temperature		°F	386.9	ISO 11357	°C	196
Vicat Softening Temperature, B*		°F	374	ISO 306	°C	190
HDT by TMA at 1.8MPa* Brittleness Temperature	ASTM D746	°F	338		°C	170
PHYSICAL						
Density	ASTM D792	$slug/ft^3$	2.35E-3	ISO 1183	g/cm^3	1.21
Water Absorption, 24 hrs.	ASTM D570	% change	1.0	ISO62(23°C/50% RH)	% change	0.28
Pencil hardness (500g)	ASTM D3363	-	3B~2B		-	3B~2B
Taber Abrasion (100 Cycles)	ASTM D1044	Delta Haze%	20.3		Delta Haze%	20.3
Surface Tension(Matt/Polish)	Dyne Pens	Dyne	34/38		Dyne	34/38
Shrinkage (30min at 170°C)			0			

PROPERTY	ASTM TEST METHOD	UNITS (USCS)	VALUE	ISO TEST METHOD	UNITS (SI)	VALUE
OPTICAL						
Refractive index @ 25 °C	ASTM D542-00		1.60			
Light Transmission	ASTM D1003	%	>90	ISO 489		90.68
Yellowness Index	ASTM E313		<0.2			
Haze	ASTM D1003	%	<14			13.26
Gloss	ASTM D523-60	-		ISO 2813		
@ 20° (Matt surface)			7			
@ 60° (Matt surface)			49.7			
@ 85° (Matt surface)			85.5			
ELECTRICAL						
Dielectric strength	ASTM D149-09	KV/mm	32.28			
Surface Resistance	ASTM D257	Ω/square	1.9E+15			
Dielectric constant, 1.1GHZ	ASTM D150	-	2.9			
Dissipation factor, 1.1GHZ	ASTM D150	-	0.0069			

- 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 and are tested at machine direction unless otherwise noted.

MANUFACTURING SPECIFICATIONS

NOMINAL GAUGE RANGES	MIN./MAX LIMIT OF NOMINAL
0.005-0.010" (0.125-0.249 mm)	-/+ 8%
0.010-0.015” (0.25-0.375mm)	-/+ 5%
0.015-0.020" (0.376-0.5 mm)	-/+ 3%

© POLYVANTIS PV_DS_001_2A13-NA9H015T-FILM_ENG_08-24