POLYVANTIS

PRODUCT DATASHEET

LEXAN™ SC8A12E FILM

DESCRIPTION

LEXAN™ SC8A12E film is a high-performance one side coated clear transparent overlay film that is typically used in governmental documents, such as passport data pages, ID cards, driving licenses etc. To that extent, features include extreme durability of coating, 1/8" mandrel bend flexibility, anti-blocking, excellent abrasion resistance, excellent clarity, and consistency of gloss level. The uncoated side has a fine matte textured surface.

TYPICAL PROPERTY VALUES*

PROPERTY	ASTM TEST METHOD	UNITS (USCS)	VALUE	ISO TEST METHOD	UNITS (SI)	VALUE
MECHANICAL						
Tensile Strength @ Yield	ASTM D882	psi	8122	ISO 527	MPa	56
Ultimate	ASTM D882	psi	8122	ISO 527	MPa	56
Tear Strength						
Initiation	ASTM D1004	lbf	12		N	52
Propagation	ASTM D1938	lbf	0.6		N	2.8
THERMAL						
Vicat Softening Temperature, B50	ASTM 1525	°F	295	ISO 306	°C	146
Heat Deflection Temp. Af 120°C/h	ASTM D648	°F	262	ISO 75 Modified	°C	128
Shrinkage at 266°F (130°C), 30min	Internal method	%	0.19%	Internal method	%	0.19%
PHYSICAL						
Density	ASTM D792	$slug/ft^3$	2.33	ISO 1183	g/cm^3	1.2
Surface Roughness Ra uncoated side		µin	35 [FM]	ISO 4288	µm	0.9 [FM]
Pencil Hardness	ASTM D3363	-	HB		-	HB
Taber Abrasion	ASTM D1044	delta Haze	3-4		delta Haze	3-4
OPTICAL						
Light Transmission	ASTM D1003	%	87		%	87
Color: b-value	CIELab, Reflection,		2.73	CIELab, Reflection,		2.73
	D65, 10°			D65, 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 Quality Services Department. Reported Values are based on 0.0042" (0.105 mm) gauge thickness unless otherwise noted.

NOMINAL GAUGE RANGES	MIN./MAX LIMIT OF NOMINAL
0.075 – 0.105 mm	± 5%

CHEMICAL RESISTANCE

CHEMICAL	RESULTS
One Hour Continuous Surface Contact at 73° F	
Acetone	Passed
MEK	Passed
Toluene	Passed
Methylene Chloride	Passed
Isopropyl Alcohol	Passed
Cyclohexane	Passed
Ethyl Acetate	Passed
40% NaOH	Passed
Conc.HCL	Passed
Gasoline (Unleaded)	Passed
Butyl Cellosolve	Passed

Failure constitutes any of the following: non-removable stain or cloudiness, blistering, de-lamination, or cracking of the coating or failure to pass crosshatch tape adhesion.

POLYVANTIS

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LEXAN™ POLYCARBONATE FILM & SHEET Tough, Virtually Unbreakable

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