POLYVANTIS

PRODUCT DATASHEET

LEXAN™ TP603 FILM

DESCRIPTION

LEXAN Tp603 polycarbonate film is a polish/polish UV stabilized transparent multilayer film, offers excellent weathering ability, high heat resistance, and superior dimensional stability for graphic and other special applications. LEXAN TP603 film has outstanding process ability and good printability, such as thermal embossing, lamination, and thermal forming.

TYPICAL PROPERTY VALUES*

PROPERTY	ASTM TEST METHOD	UNITS (USCS)	VALUE	ISO TEST METHOD	UNITS (SI)	VALUE
MECHANICAL						
Tensile Strength @ Yield	ASTM D882	psi	9400	ISO 527	MPa	65
Ultimate	ASTM D882	psi	11300	ISO 527	MPa	78
Tensile Modulus	ASTM D882	psi	450000	ISO 527	MPa	>2000
Tensile Elongation at Break	ASTM D882	%	65	ISO 527	%	65
Tear Strength						
Initiation	ASTM D1004	lb/mil	1.3		KN/m	225
THERMAL						
Coefficient of Thermal Expansion	ASTM E831	(x10-5/°F)	3.6	ISO 11359	(x10-5/°C)	6.4
Glass Transition Temperature	ASTM D3417 / D3418	°F	302	ISO 11357	°C	150
Vicat Softening Temperature, B	ASTM 1525-00	°F	323		°C	144
Heat Deflection Temp. by TMA at 1.8		°F	290	ISO 75 Modified	°C	127
Brittleness Temperature	ASTM D746	°F	-211		°C	-135
Coefficient of Thermal Expansion	ASTM E831	(x10-5/°F)	3.6	ISO 11359	(x10-5/°C)	6.4
Glass Transition Temperature	ASTM D3417 / D3418	°F	302	ISO 11357	°C	150
Vicat Softening Temperature, B	ASTM 1525-00	°F	323		°C	144
PHYSICAL						
Density	ASTM D792	slug/ft3	2.3	ISO 1183	kg/m3	1200
Water Absorption, 24 hrs.	ASTM D570	% change	0.14	ISO 62	% change	0.14
Surface Roughness (RMS)	ASME B46-1	µ	NA			
Surface Tension	Dyne Pens	Dyne	>34			
OPTICAL						
Light Transmission	ASTM D1003	%	15			
Yellowness Index	ASTM D1925	%	49			
Haze	ASTM D1003	%	103			
Gloss over Flat Black min/max @ 60°	ASTM D523-60	-	5	ISO 2813		5

- 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.

MANUFACTURING SPECIFICATIONS

NOMINAL GAUGE RANGES	MIN./MAX LIMIT OF NOMINAL
Under 0.007"(0.178mm)	± 10%
0.010-0.015" (0.254-0.381 mm)	± 5%

Color Code:
Natural Color - 112 (NC)

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