POLYVANTIS

PRODUCT DATASHEET

LEXAN™ 5020MC-112 FILM

DESCRIPTION

LEXAN™ 5020MC is a transparent polished / polished with 20% post-consumer recycled polycarbonate film. It offers excellent clarity, high heat resistance, and superior dimensional stability for graphic art applications. Derived from one of the world's toughest polymers, LEXAN 5020MC film also provides a high gloss surface finish while meeting additional requirement for gauge control and flatness.

TYPICAL PROPERTY VALUES*

PROPERTY	ASTM TEST METHOD	UNITS (USCS)	VALUE	ISO TEST METHOD	UNITS (SI)	VALUE
MECHANICAL						
Tensile Strength @ Yield, 0.381 mm	ASTM D882	psi	7,106	ISO 527	MPa	49
Tensile Ultimate Strength, 0.381 mm	ASTM D882	psi	6,381	ISO 527	MPa	44
Tensile Modulus, 0.381 mm	ASTM D882	psi	269,770	ISO 527	MPa	1860
Tensile Elongation at Break, 0.381 mm	ASTM D882	%	94	ISO 527	%	>100
Puncture Resistance (Dynatup) 0.381 mm	ASTM D3763	ft-lb	6.8		J	9.2
THERMAL						
Heat shrinkage	JIS K7133	%				
@130°C,0.5h(MD/TD)			0.3/0			
@150°C,0.5h(MD/TD)			1.9/0.6			
Glass Transition Temperature	ASTM D3417 / D3418	°F	306	ISO 11357	°C	152
Vicat Softening Temperature, B (molding bar)	ASTM 1525-00 modified	°F	297		°C	147
Heat Deflection Temp. by TMA at 1.8 Mpa (molding bar)	ASTM D648	°F	260	ISO 75 Modified	°C	127
PHYSICAL						
Density	ASTM D792	slug/ft³	2.34	ISO 1183	kg/m³	1210
Water Absorption, 24 hrs.	ASTM D570	% change	0.1	ISO 62	% change	0.1
Surface Energy	Dyne Pens	Dyne	32			
Pencil Hardness (500 g)	ASTM D3363		3B			
OPTICAL						
Light Transmission (0.7 mm)	ASTM D1003	%	92.0			
Color L-value	CIE Lab		95.9			
a-value			-0.1			
b-value			0.23			

PROPERTY	ASTM TEST METHOD	UNITS (USCS)	VALUE	ISO TEST METHOD	UNITS (SI)	VALUE
Gloss @ 60°		-		ISO 2813	-	110
ELECTRICAL						
Surface resistance	ASTM D257	Ω/square	>1E+16			

- 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
0.178mm – 0.253mm	± 10%
0.254mm - 0.508mm	± 5%

© POLYVANTIS PV_DS_001_5020MC-FILM_ENG_08-24