POLYVANTIS

PRODUCT DATASHEET

LEXAN™ HC23 FILM

DESCRIPTION

LEXAN™ HC23 Film, is a white thermoplastic film that is a blend of polybutylene terephthalate and polycarbonate. It has outstanding printability and good dimensional stability at elevated temperature.

TYPICAL PROPERTY VALUES*

PROPERTY	ASTM TEST METHOD	UNITS (USCS)	VALUE	ISO TEST METHOD	UNITS (SI)	VALUE
MECHANICAL						
Tensile Strength @ Yield	ASTM D882	Psi	8724	ISO 527	MPa	60.2
Ultimate	ASTM D882	psi	9203	ISO 527	MPa	63.5
Tensile Modulus	ASTM D882	psi	348260	ISO 527	MPa	2403
Tensile Elongation at Break	ASTM D882	%	128	ISO 527	%	128
Izod Impact, unnotched, 23°C/3.2mm	ASTM D4812	ft-lb	5.1		J	6.9
Izod Impact, notched, 23°C/3.2mm	ASTM D256	ft-lb	0.25		J	0.33
Puncture Resistance (Dynatup)	ASTM D3763	ft-lb	4.6		J	6.26
THERMAL						
Coefficient of Thermal Conductivity	ASTM E1461	Btu/hr/ft^2/°F/in	2.54		W/m°K	0.32
Coefficient of Thermal Expansion	ASTM E831	(x10^{-5}/°F)	4.4	ISO 11359	(x10^{-5}/°C)	8
Glass Transition Temperature	ASTM D3417 / D3418	°F		ISO 11357	°C	
Vicat Softening Temperature, B	ASTM 1525-00	°F	269.6		°C	132
Heat Deflection Temp. by TMA at 1.8 Mpa		°F	226.4	ISO 75 Modified	°C	108
Shrinkage at 266°F (130°C)	ASTM D1204	%	1.06/0.76			1.06/0.76
Shrinkage at 302°F (150°C)	ASTM D1204	%	1.56/1.24		%	1.56/1.24
PHYSICAL						
Density	ASTM D792	slug/ft^3	2.4	ISO 1183	kg/m^3	1.24
Water Absorption, 24 hrs.	ASTM D570	% change	0.04	ISO 62	% change	0.04
Surface Energy(1st surface/ 2nd surface)	ASTM D5946-01	-	36/35			
Surface Tension(1st surface/ 2nd surface)	Dyne Pens	Dyne	>36/34-36			
OPTICAL						
Color: L/a/b	CIE Lab 1976		91.9/-1.5/1.9			
Gloss over Flat Black fine matte @ 60°	ASTM D523-60	-	9	ISO 2813		9
ELECTRICAL						
Volume Resistivity	ASTM D257	Ω-cm	1.8E+16	IEC 60093	Ω -cm	1.8E+16
Surface Resistivity	ASTM D257	Ω /square	1.2E+16	IEC 60093	Ω /square	1.2E+16

- These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact your local POLYVANTIS Innovative Plastics representative or POLYVANTIS Quality Services Department. Reported values are based on 0.35 mm (0.014") thickness film unless otherwise noted.

MANUFACTURING SPECIFICATIONS

NOMINAL GAUGE RANGES	MIN./MAX LIMIT OF NOMINAL
0.007 – 0.010" (0.175 mm-0.250 mm)	+/-10%
0.014 - 0.020" (0.350 - 0.500mm)	+/-5%

Color code: White Color - WH9G037 (WH)

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