

Product Data Sheet

Lexan® 8010 Film

Description

Lexan 8010 is a two sides polished transparent polycarbonate film.

Lexan 8010 offers high temperature resistance, excellent dimensional stability as well as good printability without pretreatment making it the ideal product for multi-layer printing.

Typical applications include:

- control panel overlays
- remote control overlays
- high performance labels
- in-mould decoration
- automotive instrument clusters
- HV/AC overlays
- appliance overlays

Texture	Gauge (mm)	Colour
polished/polished	0.125	112
	0.175	
	0.250	
	0.375	
	0.500	
	0.635	
	0.750	





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Property	Test	Unit	Value+
Physical			
Specific Gravity	ISO 1183	g/cm ³	1.20
Water absorption, saturation, 23°C	ISO 62	%	0.35
Pencil Hardness	ASTM D3363	-	В
Optical			
Haze	ASTM D1003	%	<1
Refractive index, 25°C	DIN 53491	-	1.586
Light Transmission, average	ASTM D1003	%	90
Yellowness index	ASTM D1925	-	<1.0
Mechanical			
Tensile stress	ISO R527		
at yield		MPa	63
at break		MPa	70
Strain at break	ISO R527	%	120
Tensile Modulus Tear Strength	ISO R527	MPa	2350
initiation	ASTM D1004	kN/m	245
propagation	ASTM D1922	kN/m	10-20
Burst Strength, Mullen 25 micron	ASTM D774	N/mm ²	0.28
Fold Endurance, double 250 micron	MIT	folds	200
Thermal			
Tensile Heat Distortion, 0.35 N/mm ²	ASTM D1637	°C	150
DTUL, 1.8 N/mm ²	ISO 75	°C	135
Vicat Softening Temperature, B	ISO 306	°C	150
Specific Heat	ASTM C361	kJ/kg.°C	1.25
Coefficient of Thermal Expansion	DIN 53752	1/°C	6.8x10 -
Thermal Conductivity	DIN 52612	W/m.°C	0.20
Strain Relief, 135°C	ASTM D1204	%	< 0.2
Brittleness Temperature	ASTM D746	°C	-135
Electrical			
Dielectric Strength at 23°C in Oil, Short Time, 250 micron	IEC 243-1	kV/mm	67
Relative Permittivity	IEC 250		
50 Hz		-	2.99
1 MHz		-	2.93
Dissipation Factor	IEC 250		
50 Hz		-	0.0009
1 MHz		-	0.010
Volume Resistivity	IEC 93	Ohm.m	10 14
Surface Resistivity	IEC 93	Ohm	10 15
Arc Resistance, Tungsten	ASTM D495	S	120

 $^{+ \} Typical \ values \ only. \ Variations \ within \ normal \ tolerances \ are \ possible \ for \ the \ various \ textures.$

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Typical Film Properties				
Property	Unit	Value		
Scratches	mm	< 6 Hairline, Buff Type		
Web Edge Curl*				
Machine direction, masked	mm	< 12.7		
Machine direction, unmasked	mm	< 6.4		
Transverse direction, masked	mm	< 2.5		
Transverse direction, unmasked	mm	< 2.5		
Defect Size				
> 0.6 mm	Nr.	max. 1 per 10m ²		
> 0.4 mm	Nr.	max. 1 per 0.1 m ²		
> 0.1 mm	Nr.	max. 20 per 0.1m ²		
Nominal Gauge Variation				
< 0.375 mm	%	10 %		
>= 0.375	%	5 %		

^{*} Films from 375 to 750 micron gauge may contain curl due to roll set. This property can be minimized by double reverse winding the rolls approximately 48 hours prior to sheeting.



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