

# LEXAN™ 80330 FILM

## PRODUCT DATASHEET

### DESCRIPTION

LEXAN™ 80330 Film polycarbonate film offers high heat resistance and excellent dimensional stability and impact performance, combined with superior optical properties for back-printed, see-through applications. The product offers clarity, excellent screen printability and ease of die cutting for appliance fascias.

### TYPICAL PROPERTY VALUES

PROPERTY	ASTM TEST METHOD	UNITS (USCS)	VALUE	ISO TEST METHOD	UNITS (SI)	VALUE
<b>MECHANICAL</b>						
Tensile Strength @ Yield	ASTM D882	psi	8500	ISO 527	MPa	63
Ultimate	ASTM D882	psi	9000	ISO 527	MPa	65
Tensile Modulus	ASTM D882	psi	300000	ISO 527	MPa	>2000
Tensile Elongation at Break	ASTM D882	%	100-160	ISO 527	%	>100
Gardner Impact Strength at 0.03" (0.75 mm)	ASTM D3029	ft-lb	23	ISO 6603-1	J	31
Tear Strength						
Initiation	ASTM D1004	lb/mil	1.4-1.8		kN/m	245
Propagation	ASTM D1922	g/mil	30-55		kN/m	10-20
Puncture Resistance (Dynatup)	ASTM D3763	ft-lb	9		J	12
Fold Endurance (MIT)						
0.010" (0.25 mm)	ASTM D2176-69	double folds	NA			
0.020" (0.50 mm)	ASTM D2176-69	double folds	40 (30 mil)			
<b>THERMAL</b>						
Coefficient of Thermal Conductivity	ASTM D5470	Btu/hr/ft <sup>2</sup> /°F/in	1.35		W/m°K	0.2
Coefficient of Thermal Expansion	ASTM E831	(x10 <sup>-5</sup> /°F)	3.2	ISO 11359	(x10 <sup>-5</sup> /°C)	7
Specific Heat @40°F (4°C)	ASTM E1269	Btu/lb/°F	0.3		KJ/Kg-°C	1.25
Glass Transition Temperature	ASTM D3417 / D3418	°F	307	ISO 11357	°C	148
Vicat Softening Temperature, B	ASTM 1525-00 modified	°F	323		°C	144
Heat Deflection Temp. by TMA at 1.8 Mpa		°F	290	ISO 75 Modified	°C	127
Shrinkage at 302°F (150°C)	ASTM D1204	%	2		%	2
Brittleness Temperature	ASTM D746	°F	-211		°C	-135
<b>PHYSICAL</b>						
Density	ASTM D792	slug/ft <sup>3</sup>	2.3	ISO 1183	kg/m <sup>3</sup>	1200
Water Absorption, 24 hrs.	ASTM D570	% change	0.35	ISO 62	% change	0.35
Surface Roughness (RMS)	ASME B46-1	-	NA			
Surface Energy	ASTM D5946-01	-	34			
Surface Tension	Dyne Pens	Dyne	>34			

PROPERTY	ASTM TEST METHOD	UNITS (USCS)	VALUE	ISO TEST METHOD	UNITS (SI)	VALUE
<b>OPTICAL</b>						
Refractive Index @77°F (25°C)	ASTM D542A	-	1.6			
Light Transmission	ASTM D1003	%	91			
Yellowness Index	ASTM D1925	%	0.4			
Haze	ASTM D1003	%	0.6			
Gloss over Flat Black min/max @ 60°	ASTM D523-60	-	171	ISO 2813	-	171
UV % Transmission at 380 nm	UV/Visual Spectroscopy	%	14			

◆ These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact your local SABIC representative or the SABIC Quality Services Department. Reported values are based on 0.250 mm (0.010") thickness film unless otherwise noted.  
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## MANUFACTURING SPECIFICATIONS

NOMINAL GAUGE RANGES	MIN./MAX LIMIT OF NOMINAL
0.030-0.080" (0.750-1.50 mm)	± 10%

## CONTACT US:

### Middle East and Africa

SABIC Global Headquarters  
 PO Box 5101  
 Riyadh 11422  
 Saudi Arabia  
 T +966 (0) 1 225 8000  
 F +966 (0) 1 225 9000  
 E info@sabic.com

### Email

sfs.info@sabic-ip.com

### Americas

Specialty Film & Sheet  
 1 Plastics Avenue  
 Pittsfield, MA 01201  
 USA  
 Toll-free 1 800 323 3783  
 T 1 413 448 6655  
 F (888) 443 2033  
 E Spinside.sales@sabic-ip.com

### Europe

Specialty Film & Sheet  
 Plasticslaan 1  
 4612 PX  
 Bergen op Zoom  
 The Netherlands  
 T +31 (0)164 293678  
 F +31 (0)164 293272  
 E sfs.info@sabic-ip.com

### Asia Pacific

Specialty Film & Sheet  
 2550 Xiupu Road  
 Pudong  
 201319 Shanghai  
 China  
 T +86 21 2037 8188  
 F +86 21 2037 8288  
 E sfs.info@sabic-ip.com

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