

# Lexan\* SC92E Film Product Datasheet

## Description

Lexan SC92E graphic films are high-performance coated films primarily designed for Secure ID card and document (passport, drivers license) applications. To that extent, features include: Extreme durability of coating, 1/8" Mandrel bend flexibility, Gouge resistance, Anti-blocking, excellent abrasion resistance, excellent clarity and consistency of gloss level.

Note: Lexan SC92E film cannot be first surface printed with graphics or textures.

## 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	8800	ISO 527	MPa	60
Ultimate	ASTM D882	psi	9000	ISO 527	MPa	62
Tear Strength						
Initiation	ASTM D1004	lb/mil	1.51	ISO 34	kN/m	264
Propogation	ASTM D1922	g/mil	40		kN/m	14
<b>Thermal</b>						
Vicat Softening Temperature, B	ASTM 1525	°F	320	ISO 306	°C	160
Heat Deflection Temp. by TMA at 1.8 Mpa		°F	290	ISO 75 Modified	°C	145
Shrinkage at 302°F (150°C)	ASTM D1204	%	1.40%			1.40%
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
Pencil Hardness	ASTM D3363	-	HB			
Taber Abrasion	ASTM D1044	delta Haze	3-4			
<b>Optical</b>						
Refractive Index @77°F (25°C)	ASTM D542A	-	1.5			
Light Transmission	ASTM D1003	%	92			
Yellowness Index	ASTM D1925	%	0.7			
Haze	ASTM D1003	%	0.5			

♦ These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact your local SABIC Innovative Plastics representative or the SABIC Innovative Plastics Quality Services Department. Reported Values are Based on 0.010" (0.250 mm) Thickness unless otherwise noted.

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## Manufacturing Specifications

Nominal Gauge Ranges	Min./Max Limit of Nominal
0.007" (0.175mm)	-10% / +24%
0.010" (0.250mm)	-10% / +20%
0.015" (0.375mm)	-5% / +12%
0.020" (0.500mm)	-5% / +10%



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## Chemical Resistance

Chemical	Results
<b>One Hour Continuous Surface Contact at 73° F</b>	
Acetone	Passed
MEK	Passed
Toluene	Passed
Methylene Chloride	Passed
Isopropyl Alcohol	Passed
Cyclohexane	Passed
EthylAcetate	Passed
40% NaOH	Passed
Conc.HCL	Passed
Gasoline (Unleaded)	Passed
Butyl Cellosolve	Passed

<sup>1</sup> Failure constitutes any of the following: non-removable stain or cloudiness, blistering, delamination, or cracking of the coating or failure to pass crosshatch tape adhesion

### Americas Headquarters

SABIC Innovative Plastics  
One Plastics Avenue  
Pittsfield, MA 01201  
USA  
T +1-413-448-7125  
Toll-free: 1-800-323-3783 ext.3  
F +1 (888) 443-2033  
sfscustomerservice@sabic-ip.com

### European Headquarters

SABIC Innovative Plastics  
Plasticslaan 1  
4612 PX  
Bergen op Zoom  
The Netherlands  
T +31 164 29 2742  
F +31 164 293272

### Pacific Headquarters

SABIC Innovative Plastics  
Specialty Film & Sheet  
1266 Nanjing Road (W)  
16th Floor, Plaza 66  
200040 Shanghai  
China  
T +86 21 62881088 ext. 6733  
F +86 21 6288 0818

### E-mail

sfs.info@sabic-ip.com

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