

# LEXAN™ SC8A12E FILM

## PRODUCT DATASHEET

### DESCRIPTION

LEXAN™ SC8A12E film is a high-performance one side coated clear transparent overlay film that is typically used in governmental documents, such as passport data pages, ID cards, driving licenses etc. To that extent, features include extreme durability of coating, 1/8" mandrel bend flexibility, anti-blocking, excellent abrasion resistance, excellent clarity and consistency of gloss level. The uncoated side has a fine matte textured surface.

### 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	8122	ISO 527	MPa	56
Ultimate	ASTM D882	psi	8122	ISO 527	MPa	56
Tear Strength						
Initiation	ASTM D1004	lbf	12	ASTM D1004	N	52
Propagation	ASTM D1938	lbf	0.6	ASTM D1938	N	2.8
<b>THERMAL</b>						
Vicat Softening Temperature, B50	ASTM 1525	°F	295	ISO 306	°C	146
Heat Deflection Temp. Af 120°C/h	ASTM D648	°F	262	ISO 75 Modified	°C	128
Shrinkage at 266°F (130°C), 30min	Internal method	%	0.19%	Internal method	%	0.19%
<b>PHYSICAL</b>						
Density	ASTM D792	slug/ft <sup>3</sup>	2.33	ISO 1183	g/cm <sup>3</sup>	1.2
Surface Roughness Ra uncoated side		µin	35 [FM]	ISO 4288	µm	0.9 [FM]
Pencil Hardness	ASTM D3363	-	HB	ASTM D3363	-	HB
Taber Abrasion	ASTM D1044	delta Haze	3-4	ASTM D1044	delta Haze	3-4
<b>OPTICAL</b>						
Light Transmission	ASTM D1003	%	87	ASTM D1003	%	87
Color: b-value	CIELab, Reflection, D65, 10°		2.73	CIELab, Reflection, D65, 10°		2.73

◆ 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 0.0042" (0.105 mm) gauge thickness unless otherwise noted.

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## MANUFACTURING SPECIFICATIONS

NOMINAL GAUGE RANGES	MIN./MAX LIMIT OF NOMINAL
0.075 and 0.105 mm	± 5%

## CHEMICAL RESISTANCE

CHEMICAL	RESULTS
One Hour Continuous Surface Contact at 73° F	
Acetone	Passed
MEK	Passed
Toluene	Passed
Methylene Chloride	Passed
Isopropyl Alcohol	Passed
Cyclohexane	Passed
Ethyl Acetate	Passed
40% NaOH	Passed
Conc.HCL	Passed
Gasoline (Unleaded)	Passed
Butyl Cellosolve	Passed

Failure constitutes any of the following: non-removable stain or cloudiness, blistering, de-lamination, or cracking of the coating or failure to pass crosshatch tape adhesion.

## 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](mailto:info@sabic.com)

### Americas

Functional Forms  
2500 City West Boulevard  
Suite 100  
Houston, TX 77042  
USA  
Toll-free (800) 323 3783  
F (888) 443 2033  
E [spinside.sales@sabic.com](mailto:spinside.sales@sabic.com)

### Europe

Functional Forms  
Plasticslaan 1  
4612 PX Bergen op Zoom  
The Netherlands  
T +31 164 293678  
F +31 164 293272  
E [ff.info@sabic.com](mailto:ff.info@sabic.com)

### Asia Pacific

Functional Forms  
2550 Xiupu Road  
Pudong  
201319 Shanghai  
China  
T +86 21 2037 8188  
F +86 21 2037 8288  
E [ff.info@sabic.com](mailto:ff.info@sabic.com)

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