

## Description

Lexan\* SD8B94 Film is a one side fine velvet (FV), one side fine matt (FM) clear transparent laser markable polycarbonate film that has specifically been designed to be used in government security documents, such as passport data pages, ID cards, driving licenses , ... It offers great printability and ease of processing ( laminating, die-cutting, printing)  
Lexan\* SD8B94 Film is available in the gauges 50 – 100 - 150µm.

## 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
Tensile Modulus	ASTM D882	psi	311 x10 <sup>3</sup>	ISO 527	MPa	2150
Tensile Elongation at Break	ASTM D882	%	85	ISO 527	%	85
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>						
Coefficient of Thermal Expansion, flow	ASTM E831	(x 10-5 / °F)	4.3	ISO 11359	(x 10-5 / °C)	7.8
Glass Transition Temperature	ASTM D3418	°F	298	ISO 11357	°C	148
Vicat Softening Temperature, B50	ASTM 1525	°F	297	ISO 306	°C	147
Heat Deflection Temp. Ae 120°C/h	ASTM D648	°F	261	ISO 75 Modified	°C	127
Shrinkage at 130°C, 30min	Internal method	%	0.14	Internal method	%	0.14

## Manufacturing Specifications

Nominal Gauge Ranges	Min./Max Limit of Nominal
.002 - 0.006" (0.050 - 0.150mm)	-/+ 5%

- ♦ These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact your local GE Advanced Materials, Specialty Film & Sheet representative or the Quality Services Department. Reported Values are Based on 0.150 mm (0.006") thickness film, except for the Coefficient of thermal expansion, Vicat softening temperature, Heat deflection temperature and water absorption, which are based on molded parts. Mechanical properties are based on 0.250 mm (0.010") thickness film.

Property	ASTM Test Method	Units	Value	ISO Test Method	Units	Value
<b>Physical</b>						
Density	ASTM D792	slug/ft3	2.33	ISO 1183	g/cm <sup>3</sup>	1.20
Water Absorption, 24 hrs.	ASTM D570	% change	0.17	ISO 62	% change	0.17
Surface Roughness Ra		µin	30 [FM]	ISO4288	µm	0.75 [FM]
			102 [FV]			2.6 [FV]
Surface Roughness R3z		µin	150 [FM]	ISO4288	µm	3.8 [FM]
			547 [FV]			13.9 [FV]
Surface Tension	Dyne solutions	Dyne/cm	46 [FM]	Dyne solutions	Dyne/cm	46 [FM]
			40 [FV]			40 [FV]
<b>Optical</b>						
Light Transmission	ASTM D1003	%	86	ASTM D1003	%	86
Color: b-value	CIELab, Reflection, D <sub>65</sub> , 10°		2.44	CIELab, Reflection, D <sub>65</sub> , 10°		2.44

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