

LEXAN™ SD14UV FILM

PRODUCT DATASHEET

DESCRIPTION

LEXAN™ SD14UV Film is a one side fine velvet (FV), one side fine matte (FM) clear transparent laser markable polycarbonate overlay film that is typically used in government security documents, such as passport data pages, ID cards, driving licenses, ... Beside great printability and ease of processing (laminating, die-cutting, hot stamping), it offers the possibility to apply personalized security features into the card by use of UV laser marking. LEXAN™ SD14UV Film is available in 50 and 100µm.

TYPICAL PROPERTY VALUES

PROPERTY	ASTM TEST METHOD	UNITS (USCS)	VALUE	ISO TEST METHOD	UNITS (SI)	VALUE
MECHANICAL						
Tensile Strength @Yield	ASTM D882	psi	7830	ISO 527	MPa	54
@Break	ASTM D882	psi	9700	ISO 527	MPa	67
Tensile Modulus	ASTM D882	psi	300 x10 ³	ISO 527	MPa	2080
Tensile Elongation at Break	ASTM D882	%	137	ISO 527	%	137
THERMAL						
Coefficient of Thermal Expansion, flow	ASTM E831	(x 10 ⁻⁵ / °F)	4.2	ISO 11359	(x 10 ⁻⁵ / °C)	7.5
Vicat Softening Temperature, B50	ASTM 1525	°F	295	ISO 306	°C	147
Shrinkage at 130°C, 30min	Internal method	%	0.17	Internal method	%	0.17
PHYSICAL						
Density	ASTM D792	slug/ft ³	2.33	ISO 1183	g/cm ³	1.20
Water Absorption, 24 hrs.	ASTM D570	% change	0.09	ISO 62	% change	0.09
Surface Roughness Ra		µin	23[FM]	ISO4288	µm	0.6 [FM]
			102[FV]			2.6[FV]
Surface Tension	Dyne solutions	Dyne/cm	44 [FM]	Dyne solutions	Dyne/cm	44 [FM]
			38 [FV]			38 [FV]
OPTICAL						
Light Transmission	ASTM D1003	%	84	ASTM D1003	%	84
Color: b-value	CIELab, Reflection, D65, 10°		3.26	CIELab, Reflection, D65, 10°		3.26

◆ These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact your local SABIC, Specialty Film & Sheet representative or the Quality Services Department. Reported Values are based on 0.100 mm (0.004") thickness film, except for the Coefficient of thermal expansion, Vicat softening temperature, Heat deflection temperature and water absorption, which are based on molded parts.

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MANUFACTURING SPECIFICATIONS

NOMINAL GAUGE RANGES	MIN./MAX LIMIT OF NOMINAL
0.050 and 0.100 mm	± 5%

CONTACT US:

SABIC CORPORATE HQ

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

AMERICAS

SABIC
Functional Forms
2500 CityWest Boulevard
Suite 100
Houston, TX 77042
USA
Toll-free (800) 323 3783
F (888) 443 2033
E spinside.sales@sabic.com

EUROPE

SABIC
Functional Forms
Plasticslaan 1
4612 PX
Bergen op Zoom
The Netherlands
T +31 (0)164 293684
F +31 (0)164 292272
E ff.info@sabic.com

PACIFIC

SABIC
Functional Forms
2550 Xiupu Road
Pudong
201319 Shanghai
China
T +86 21 3222 4500
F +86 21 6289 8998
E ff.info@sabic.com

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