

LEXAN™ HP92AF ANTI-FOG FILM

PRODUCT DATASHEET

DESCRIPTION

LEXAN™ HP92AF Anti-fog film is a one-side coated Polycarbonate film. LEXAN HP92AF film shows very limited reduction in visibility even under high humidity environments. It offers anti-fog, abrasion resistance, impact resistance, and good optical clarity. Typical applications include; Personnel Protective Equipment visors & face shields in high humidity environments, safety goggles, motorcycle visors, ski goggles, instrument lenses and display panels. LEXAN HP92AF Anti-fog coated film is available in 48" width (1219mm) and gauges from 0.007" to 0.030" (0.178 to 0.760 micron). Masking is of the cling type on the uncoated side and of the stick type on the coated side.

TYPICAL PROPERTY VALUES

PROPERTY	ASTM (ISO) TEST METHOD	UNITS USCS (SI)	VALUE
MECHANICAL			
Tensile Strength			
@ Yield	ASTM D882 (ISO 527)	psi (MPa)	8800 (60)
Ultimate	ASTM D882 (ISO 527)	psi (MPa)	9000 (62)
Tear Strength			
Initiation	ASTM D1004	lb/mil (kN/m)	1.51 (264)
Propagation	ASTM D1922	g/mil (kN/m)	40 (14)
THERMAL			
Vicat Softening Temperature, B	ASTM 1525	°F (°C)	320 (160)
Heat Deflection Temp. by TMA at 1.8 Mpa	ISO 75 Modified	°F (°C)	290 (145)
Shrinkage at 302°F (150°C)	ASTM D1204	%	1.40%
PHYSICAL			
Anti-fog Properties	Exposure to 50C Water	Time to Fog	No flash over
Density	ASTM D792 (ISO 1183)	slug/ft ³ (kg/m ³)	2.3 (1200)
Thermoforming		% Thinning	<5
Pencil Hardness (coated surface)	ASTM D3363	-	B-HB
Taber Abrasion	ASTM D1044	delta Haze	15-20%
OPTICAL			
Refractive Index @77°F (25°C)	ASTM D542A	-	1.5
Light Transmission	ASTM D1003	%	>88
Yellowness Index	ASTM D1925	%	0.6
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 – 0.015" (0.175 – 0.37mm)	± 5%
0.20 – 0.03" (0.508 – 0.762mm)	± 3%

MASKING

The standard masking on LEXAN™ HP92AF film is not designed to have UV radiation (for curing) passed through it. If this is required, alternate masking is available. Please contact your sales representative for more details.

CHEMICAL RESISTANCE SUMMARY

Chemical class	Effects
Alcohols	Generally compatible, tested at 1 hour continues surface contact at 73 °F
Acetone	Not compatible
Detergents and Cleaners	Generally compatible, tested at 24 hours surface contact at 120 °F Cleaners like Mr. Clean* and Windex w/Ammonia D**
Flavors	Not compatible for concentrates such as coffee, tea, mustard, ketchup
Gasoline	Not compatible

* Mr. Clean are registered trademarks of Procter & Gamble,

** Windex w/Ammonia D is a registered trademark of Dracett Products Company



CONTACT US:

SABIC CORPORATE HQ

PO Box 5101
Riyadh 11422
Saudi Arabia
T +966 (0) 1225 8000
F +966 (0) 1225 9000
E info@sabic.com

AMERICAS

SABIC
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

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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