

# 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 and gauges from 0.007" to 0.030". 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
<b>MECHANICAL</b>			
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)
<b>THERMAL</b>			
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%
<b>PHYSICAL</b>			
Anti-fog Properties	Exposure to 50C Water	Time to Fog	No flash over
Density	ASTM D792 (ISO 1183)	slug/ft <sup>3</sup> (kg/m <sup>3</sup> )	2.3 (1200)
Thermoforming		% Thinning	<10
Pencil Hardness (coated surface)	ASTM D3363	-	B-HB
Taber Abrasion	ASTM D1044	delta Haze	15-20%
<b>OPTICAL</b>			
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

PROPERTY CHEMICAL	RESULTS
<b>One Hour Continuous Surface Contact at 73 °F †</b>	
Acetone	Fail
MEK	Fail
Toluene	Fail
Methylene Chloride	Fail
Isopropyl Alcohol	Pass
Cyclohexanone	Fail
Ethyl Acetate	Fail
Gasoline (Unleaded)	Fail

PROPERTY CHEMICAL	RESULTS
<b>24 hour Surface Contact at 120 °F †</b>	
Coffee	Fail (vsl stain)
Fantastik ##	Fail
Formula 409 *	Fail
Windex w/ Ammonia D ###	Pass
Spray N Wash##	Fail
Clorox*	Pass
Mustard	Fail
Mr. Clean #	Pass
Ketchup	Fail
Tea	Fail

† 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.

†† Post cure conditions: One elliptical focused medium pressure mercury vapor lamp at 300 watts/inch and a conveyor speed of 20 feet/minute

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# Mr. Clean are registered trademarks of Procter & Gamble

## Fantastik and Spray ‘N Wash are registered trademarks of Texize, Division of Norton Norwich Products, Inc.

### Windex w/Ammonia D is a registered trademark of Drackett Products Company



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