POLYVANTIS

PRODUCT DATASHEET

LEXAN™ DPHP92AF ANTI-FOG FILM

DESCRIPTION

LEXAN™ DPHP92AF is a one side primed film designed for increased digital UV ink adhesion under laminating adhesive exposure where other polycarbonate film solutions may not perform as needed. Due to rapid development of ink adhesion, post drying of the printed artwork prior to adhesive lamination can be eliminated (with many digital ink sets) thus reducing production cycle time. LEXAN™ DPHP92AF Anti-fog film is a one-side coated Polycarbonate film. LEXAN DPHP92AF 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 DPHP92AF 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
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	<10
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, pleasecontact your local POLYVANTIS Innovative Plastics representative or the POLYVANTIS Innovative Plastics' Quality Services Department.
  Reported Values are Based on 0.010" (0.250 mm) Thickness unless otherwise noted.

MANUFACTURING SPECIFICATIONS

NOMINAL GAUGE RANGES	MIN./MAX LIMIT OF NOMINAL
≤0.010" (0.250mm)	± 10%
>0.010" (0.250mm)	± 5%

MASKING

The standard masking on LEXAN™ DPHP92AF 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
One Hour Continuous Surface Contact at 73 °F †	
Acetone	Fail
MEK	Fail
Toluene	Fail
Methylene Chloride	Fail
Isopropyl Alcohol	Pass
Cyclohexanone	Fail
Ethyl Acetate	Fail
Gasoline (Unleaded)	Fail
24 hour Surface Contact at 120 °F †	
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
* Formula 409 and Clorox are registered trademarks of the Clorox Company
# 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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LEXAN™ POLYCARBONATE FILM & SHEET Tough, Virtually Unbreakable

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