

Description

Lexan* OQ92S optical film is a high-performance coated film which may offer very good chemical/abrasion resistance, together with unique processing characteristics as well as improved surface quality over standard Lexan HP92S Film. This highly durable, easily printed film may help create new opportunities in graphic design whose potential benefits may include: Flexible UV processing, Multiple topside selective texturing, Durability of coating and texture adhesion when exposed to strong household chemicals such as Wisk[†] or Formula 409[#]. Lexan OQ92S Film is available in 48" widths and gauges from .007" to .030". Masking is of the cling type on the uncoated side and of the stick type on the coated side.

Typical property Values ♦

Property	Test Method	Units	Value
Physical			
Specific Gravity	ASTM D792	--	1.20
Area Factor	Calculation	ft ² /lb/mil m ² /kg/mm	160.0 0.833
Haze	ASTM D1003	%	< 0.5
Light Transmission	ASTM D1003	%	90.0
Yellowness Index	ASTM D192	--	1.0
Water Absorption, Equilibrium	ASTM D570	%	.40
Resistance to Humidity 720 hrs @ 100°F, 100% R.H.	SABIC Test	--	*
Gloss			
Backpainted, Flat Black	ASTM D523	Gardner	
60°			90.0
20°			84.0
Gloss			
Clear Over White	ASTM D523	Gardner	
60°			167.0
20°			184.0
Mechanical			
Tensile Strength	ASTM D882		
Yield		psi	8500
Ultimate		psi	8800
Tear Strength			
Initiation	ASTM D1004	lb/mil	1.4
Propagation	ASTM D1922	g/mil	30.0
Thermal			
Heat Aging @ 168 Hrs., 180°F	SABIC Test	—	*

♦ 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.

[†] Wisk is a registered trademark of Lever Brothers Company

[#] Formula 409 is a registered trademark of Clorox Company

* No visible Change

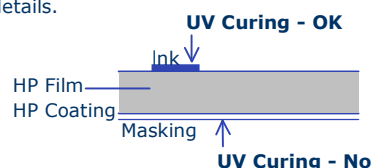
* Trademark of SABIC Innovative Plastics IP BV

Lexan* OQ92S Film

Product Datasheet

Masking

The standard masking on Lexan OQ92 films 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 and Abrasion resistance

A unique feature of Lexan* OQ92 films is receptivity to multiple-pass, first-surface decoration for selective textures and/or color graphics. This feature requires that the coating be chemically sensitive to a variety of ink formulations. As a result, the coating is subject to attack by aggressive industrial chemicals and some strong household cleaners. Both the chemical resistance and the hardness of the coating can be enhanced by exposing the coated surface of the film to UV curing conditions.

Chemical Resistance

Chemical	Results [†]	
	As Manufactured	Post Cured ^{††}
One hour continuous Surface Contact at 73°F		
Acetone	Failed	Passed
MEK	Failed	Passed
Toluene	Failed	Passed
Methylene Chloride	Failed	Passed
Isopropyl Alcohol	Passed	Passed
Cyclohexanone	Failed	Passed
Ethyl Acetate	Failed	Passed
Xylene	Failed	Passed
40% NaOH	Failed	Passed
Concentrated HCl	Passed	Passed
Gasoline (Regular)	Passed	Passed
Gasoline (Unleaded)	Passed	Passed
Butyl Cellosolve	Failed	Passed
24 Hour Surface Exposure at 120°F		
Coffee	Failed	Passed
Top Job [‡]	Failed	Passed
Fantastik ^{##}	Passed	Passed
Formula 409 [#]	Failed	Passed
Windex w/ Ammonia D ^{###}	Failed	Passed
Wisk [¶]	Failed	Passed
Downy [#]	Passed	Passed
Spray N Wash ^{##}	Passed	Passed
Clorox [*]	Failed	Passed
Mustard	Failed	Passed
Mr. Clean [#]	Passed	Passed
Ketchup	Passed	Passed
Tea	Passed	Passed
Tomato Juice	Passed	Passed
Lemon Juice	Passed	Passed
Grape Juice	Passed	Passed
Vinegar	Passed	Passed
Milk	Passed	Passed

[†] 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

[¶] Wisk is a registered trademark of Lever Brothers Company

[#] Formula 409 and Clorox are registered trademarks of the Clorox Company

[#] Top Job, Downy, and 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

TABER ABRASION RESISTANCE (ASTM D1044) LEXAN OQ92S Graphic Film

Condition CS10F Wheel, 500 Grams	Units	As manuf.	Post Cured [†]
25	Change in % Haze	1.7	1
50	Change in % Haze	3.2	2
100	Change in % Haze	6.5	4.1
200	Change in % Haze	12.9	9

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



* Trademark of SABIC Innovative Plastics IP BV

Americas:
SABIC Innovative Plastics
Specialty Film & Sheet
One Plastics Avenue
Pittsfield, MA 01201
USA
Tel. (1) (413) 448 5400
Fax. (1) (413) 448 7506
Toll free: 1-800 451 3147

Europe:
SABIC Innovative Plastics
Specialty Film & Sheet
Plasticslaan 1
NL - 4612 PX Bergen op Zoom
The Netherlands
Tel. (31) (164) 292911
Fax. (31) (164) 293272

Pacific:
SABIC Innovative Plastics
Specialty Film & Sheet
1266 Nanjin Road (W)
Plaza 66, 17th Floor
200040 Shanghai, China
Tel. (86) 21 62881088
Fax. (86) 21 62880818

THE MATERIALS, PRODUCTS AND SERVICES OF SABIC INNOVATIVE PLASTICS HOLDING BV, ITS SUBSIDIARIES AND AFFILIATES ("SELLER"), ARE SOLD SUBJECT TO SELLER'S STANDARD CONDITIONS OF SALE, WHICH CAN BE FOUND AT <http://www.sabic-ip.com> AND ARE AVAILABLE UPON REQUEST. ALTHOUGH ANY INFORMATION OR RECOMMENDATION CONTAINED HEREIN IS GIVEN IN GOOD FAITH, SELLER MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (i) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING SELLER'S PRODUCTS, SERVICES OR RECOMMENDATIONS. EXCEPT AS PROVIDED IN SELLER'S STANDARD CONDITIONS OF SALE, SELLER SHALL NOT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS PRODUCTS OR SERVICES DESCRIBED HEREIN. Each user is responsible for making its own determination as to the suitability of Seller's products, services or recommendations for the user's particular use through appropriate end-use testing and analysis. Nothing in any document or oral statement shall be deemed to alter or waive any provision of Seller's Standard Conditions of Sale or this Disclaimer, unless it is specifically agreed to in a writing signed by Seller. No statement by Seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Seller or as a recommendation for the use of such product, service or design in a manner that infringes any patent or other intellectual property right.

SABIC Innovative Plastics is a trademark of Sabic Holding Europe BV

* Trademark of SABIC Innovative Plastics IP BV