SABIC Innovative Plastics Specialty Film & Sheet

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SABIC Innovative Plastics Specialty Film & Sheet provides value-added solutions across a wide variety of industries, ranging from graphics and electronics to building and construction. These solutions are founded on a portfolio of high quality materials backed by advanced technical support around the world.

SABIC Innovative Plastics benefits from global cross-business resources and expertise. The polymer processing development center in the USA and its technical centers in the Netherlands, Japan, China, Korea and India help keep customers at the leading edge of film and processing technology. Hands-on engineering support for customers covers most aspects of application development – from design reviews, prototyping and testing, to thermoforming, injection molding and insert mold decoration (IMD).

Lexan* polycarbonate graphic film & sheet

Clear added-value performance

For the graphics industry, a range of tailor-made Lexan polycarbonate graphic film and sheet products helps deliver top quality performance and unlimited versatility. These materials are characterized by outstanding optical clarity and mechanical strength, consistent printability and ease of processing. Top quality is available in a wide choice of standard and high performance grades and a variety of surface finishes and textures. From anti-fog goggles to skid-resistant floor graphics, from crystal clear LED displays to large-scale in-mold decorated parts, end products are durable, eye-catching and cost-effective.

Printability

Lexan polycarbonate films may be an excellent candidate for screen or offset printing and they offer unlimited possibilities to achieve a variety of graphic effects and intricate designs. They can be first (front) surface printed and, due to their excellent clarity across all gauges, they may be suitable for second-surface printing. They offer excellent ink adhesion without pre-treatment and consistently enhance colors, with no loss of depth or vividness in second-surface printing. The films are compatible with a broad range of inks including conventional solvent-based inks, many UV-curing inks, water-based inks and infrared curing inks.

Optical clarity

Across all gauges, high light transmission and low haze values make Lexan film one of the highest clarity films available. Most Lexan films transmit 90% of visible light, which is a key reason why these materials are commonly used for LED/LC windows.

Thermal stability

The high heat resistance and dimensional stability of Lexan film allows close-tolerance registration after repeated heating and drying cycles, as well as close proximity to illumination sources and other heat-emitting components. The film permits end-use performance to 133°C (270°F), with a continuous use temperature of 85°C (185°F).

Formability

Lexan film's high melt strength facilitates thermoforming using a wide range of techniques. These include vacuum forming, pressure forming, embossing, matched metal forming, hydroforming, drape forming, thermal forming and pressure assist forming. Lexan film also offers the capability to produce deep-drawn, three-dimensional parts.

Design freedom

The Lexan film portfolio provides broad design versatility through its wide range of product options. These fall into four broad categories – polished films, textured films, flame retardant films and high performance films.

Polished graphic grades (gauges up to 750 microns)

Grade	Surface	Gauges (microns)	Gauges (mills)	Roll widths (mm)	Roll widths (inch)
8010	clear, polished	125 - 750	5 - 30	915 / 1220 (1524)	36 / 48 (60)
8020	colored, polished	250 - 750	10 - 30	915 / 1220	36 / 48
8040	clear, FDA approved, polished	175 - 750	7 - 30	915 / 1220 (1524)	36 / 48 (60)

Polished optical grades

Grade	Surface	Gauges (microns)	Gauges (mills)	Roll widths (mm)	Roll widths (inch)
OQ	optically clear polished	175 & 650	7 & 25	1220 / 1270	48 / 50
T2FOQ	optically clear / low stress	175 - 500	7 - 20	1220 / 1270	48 / 50

Graphic sheet (gauges above 750 microns)

Grade	Surface	Gauges (microns)	Gauges (mills)	Max sheets sizes (mm)	Max sheets sizes (inch)
80330	clear, polished	750 - 2000	30 - 80	1250 x 2050	50 x 80
80550	clear, polished*	750 - 2000	30 - 80	1250 x 2050	50 x 80
80650	clear, polished*	750 - 2000	30 - 80	1250 x 2050	50 x 80

* Specifically developed for UV curing ink systems.

Textured grades (gauges up to 750 microns)

Textured one side

Grade	Surface	Gauges (microns)	Gauges (mills)	Roll widths (mm)	Roll widths (inch)
8A13	matte / polished	125 - 635	5 -25	915 / 1220	36 / 48
8A13F	fine matte / polished	250 - 500	10 - 20	915 / 1220	36 / 48
8A35	velvet / polished	125 - 750	5 - 30	915 / 1220	36 / 48
8A37	brushed / polished	250 - 500	10 - 20	915 / 1220	36 / 48
8A73	matte / polished	250 - 500	10 - 20	915 / 1220	36 / 48
T2F	matte / polished	175 - 635	7 - 25	1220 / 1524	48 / 60

Textured both sides

Grade	Surface	Gauges (microns)	Gauges (mills)	Roll widths (mm)	Roll widths (inch)
8B35	velvet / matte	75 - 500	3 - 20	915 / 1220 / 1524	36 / 48 / 60
8B35E	velvet / matte	125 - 500	5 - 20	915 / 1220	36 / 48
8B35F	velvet / fine matte	175 - 750	7 - 30	915 / 1220	36 / 48
8B36	suede / matte	250 - 500	10 - 20	915 / 1220	36 / 48
8B38	velvet / fine matte	175 - 1000**	17 - 40	915 / 1220	36 / 48
DM35	velvet / matte	125 - 375	5 - 15	915 / 1524	36 / 61
GS135	velvet / matte	250 - 500	10 - 20	1220	46

** 1000 only available sheeted 2050 x 1250 mm

Textured grades - flame retardant

Flame retardant grades

Lexan flame retardant films offer screen printers the same printability and ink adhesion as other Lexan graphic films, combined with superior flame retardancy, (meeting UL94-V0 and VTM0 standards), excellent dielectric strength, low moisture absorption and high dimensional stability. These films are available in a choice of textured finishes.

Flame retardant grade

Grade	Surface	Gauges (microns)	Gauges (mills)	Roll widths (mm)	Roll widths (inch)
FR60	polished / polished	250 - 750	10 - 30	915 / 1220 (1524)	36 / 48 / 60
FR63	matte, polished	250 - 635	10 - 25	915 / 1220	36 / 48
FR65	velvet / matte	250 - 500	10 - 20	915 / 1220 (1524)	36 / 48 / 60
FR66	suede / matte	250 - 500	10 - 20	915 / 1220	36 / 48
FR83	matte, polished	50 - 175	2 - 7	915	36

Chemical and abrasion resistant grades

Grade	Coated surface	Uncoated surface	Gauges (microns)	Gauges (mills)	Roll widths (mm)	Roll widths (inch)
HP92 S or H	polished (92% gloss)	polished	175 - 750	7 - 30	1220	48
HP60 S or H	very fine matte (60% gloss)	polished	175 - 750	7 - 30	1220	48
HP40 S or H	fine matte (40% gloss)	polished	175 - 750	7 - 30	1220	48
HP12 S or H	matte (12% gloss)	polished	175 - 750	7 - 30	1220	48

Chemical, abrasion and UV resistant grades

Grade	Coated surface	Uncoated surface	Gauges (microns)	Gauges (mills)	Roll widths (mm)	Roll widths (inch)
HP92 W	polished (92% gloss)	polished	175 - 635	7 - 25	1220	48
HP12 W	matte (12% gloss)	polished	175 - 635	7 - 25	1220	48
HP92 WP	polished (92% gloss)	polished	175 - 635	7 - 25	1220	48

Anti-fog grades

Grade	Coated surface	Uncoated surface	Gauges (microns)	Gauges (mills)	Roll widths (mm)	Roll widths (inch)
HPFAF	anti-fog	polished	175 - 750	7 - 30	1220	48

Abrasion resistant anti-fog grades

Grade	1st coated surface	2nd coated surface	Gauges (microns)	Gauges (mills)	Roll widths (mm)	Roll widths (inch)
HP92AF	abrasion resistant (92% gloss)	anti-fog coating	500 - 750	20 - 30	1220	48

Optical performance

Grade	Coated surface	Uncoated surface	Gauges (microns)	Gauges (mills)	Roll widths (mm)	Roll widths (inch)
OQ92S	92% gloss optical grade	polished optical grade	175 - 750	7 - 30	1220	48