

# Fasara™ Glass Decorative Films

## Product Bulletin

### Product Description

Fasara™ films are dimensionally stable, translucent polyester films with a decorative matte surface. Perfect for privacy, decorative and architectural applications to flat, glass surfaces. The films are for interior and exterior applications.

Product Line Window decoration 53 different designs available. 2 design for outdoor decoration only.

For available color and pattern see appendix. Please contact the 3M Sales Office for stock available and lead times.

### Product Characteristics

These are typical values for unprocessed product.  
Contact your 3M representative for a custom specification.

#### Physical & Application

Material	Polyester		
Surface finish	Different, depending on designs.		
Thickness (film)	0.070 mm to 0.14 mm		
Adhesive type	Pressure sensitive, removable		
Adhesive appearance	Clear		
Liner	Transparent synthetic		
Adhesion	7.0	[N/25 mm]	FTM 1 180° peel, substrate: glass; cond: 24h 23°C/50%RH
Application temperature	+10°C to +38°C		(air and substrate)
Application method	Wet		
Applied film shrinkage	No detectable shrinkage		
Service temperature	-29°C to +80°C		(Mat Crystal 2 up to +65°C)
Surface type	Flat and glass only		
Fasara™ removal	<ul style="list-style-type: none"> <li>- Film can be removed without the use of heat and/ or chemicals.</li> <li>- After removing low adhesive residue could be remain.</li> </ul>		

No liability is given for ease or speed of removal of any graphic. Pay attention to adequate air and substrate temperature.

Shatter Prevention Fasara™ films reduces the scattering and falling of broken pieces of glass in the event of glass breakage, and it satisfies the glass scattering prevention capability (A method, B method) according to the JIS A5759 (Japan code).

Warranty	This warranty does not apply to film problems caused by defective application.	
	Indoor application	Film applied to the indoor side of exterior wall glass Vertical surface 3 years Non-vertical surface 2 years
	Indoor application	Film applied to indoor interior decoration (no direct UV light) Vertical surface 5 years Non-vertical surface 5 years
	Outdoor application	Films (Mat Crystal 2 and Milky Crystal only) applied to the outdoor side of exterior wall glass Vertical surface 3 years Non-vertical surface 1 year
Durability	Unprocessed film	The durability data is given for unprocessed film only!
	Indoor application	Film applied to the indoor interior and side of exterior wall glass Vertical surface 10 years Non-vertical surface 5 years
	Outdoor application	Mat Crystal 2 and Milky Crystal films only Vertical surface 4 years Non-vertical surface 2 years
Storage	Shelf life	2 years from the date on the original box Up to 2 years unprocessed, or processed within 1 year and apply within 1 year of processing.
	Storage conditions!	+4°C to +40°C, out of sunlight, original container in clean and dry area.
Flammability	Flammability standards are different from country to country. Please ask your local 3M contact for details. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials. Achieved level: Class 1 (A)	

## Limitations of End Uses

3M specifically does not recommend or warrant the following uses, but please contact us to discuss your needs to recommend other products.

Fasara™ applied to

- any other surface than glass
- other than flat glass
- other than interior applications (except Mat Crystal 2 and Milky Crystal)
- surfaces that are not clean and smooth
- inbetween two sheets of glass
- indoor side of locations where condensation continuously occurs

Important Notice

- 3M Architectural Market Department products are not tested against automotive manufacturer specifications!
- non vertical applications will have a significant decrease in durability!

## Converting Information

Based upon cutting evaluations the minimum height for text is 10 mm using upper and lowercase Helvetica Medium. The stroke width should not be lower than 1 mm.

### Electronic Cutting

The variable characteristics of electronically controlled cutting equipment require users to verify their specific requirements.

Sharpness of knife blade

Dull blades impart a serrated look to the edge of the cut film.

Weight of knife blade

The ideal weight slightly scores the liner. Too little weight does not cut completely through the film and the adhesive. Excessive weight cuts the liner and causes the blade to drag, accelerating wear and creating a serrated cut edge on the film.

Weeding

The excess film should be weed (removed) as soon after cutting as practical. This is to minimize the effect of possible adhesive flow. Slow weeding is recommended.

Temperature and relative humidity

Temperature and relative humidity are minor considerations, but avoid extreme or rapid fluctuating conditions.

Further information

For more details refer to our instruction bulletin 4.1 "Sheeting, Scoring, Film Cutting"

## Maintenance and Cleaning

If the surface of the film becomes dirty, leaving it could cause film to deteriorate sooner.

- Carefully wash with the water using a rubber squeegee or a damp, soft cloth (do not wipe with a dry cloth).
- Wipe only one direction on the film surface (do not wipe back and forth).
- Carefully use a rubber squeegee for window glass in particular moving over edges.

## Remarks

This bulletin provides technical information only.

### Important notice

All questions of warranty and liability relating to this product are governed by the terms and conditions of the sale, subject, where applicable, to the prevailing law.

Before using, the user must determine the suitability of the product for its required or intended use, and the user assumes all risk and liability whatsoever in connection therewith.

### Additional Information

Visit the web site of your local subsidiary at [www.3M.eu/ArchitecturalMarkets](http://www.3M.eu/ArchitecturalMarkets) for getting more:

- additional instruction bulletins
- a complete product overview about materials 3M is offering

# Appendix

## Fasara™ Glass Decorative Films.

Definition	Shading Coefficient	This index shows the sun blocking effect. It shows the percentage of sunlight entering a room when the film is applied to 6 mm thick transparent glass when the value "1" is used for the amount of sunlight passing through 3 mm thick transparent glass.
	Transmittance Reflectance Absorbance	This shows the respective rates at which UV (ultraviolet), brightness (visible light), and hotness (sunlight) are transmitted, reflected, or absorbed when the film is applied to the glass.
	Heat Transmission	This index shows the ease of heat escape caused by a temperature difference between indoor and outdoor. It shows the amount of heat that would escape in 1 hr from a surface area of 1m <sup>2</sup> when there is a temperature difference of 1°C.

	Name	Product No.	Film Thickness (Excluding release liner)	Shading Coefficient	Sunlight			Visible Light		UV Transmittance (%)	Heat Transmission Coefficient (W/m <sup>2</sup> K)	Roll Width (mm)	Length (m)
					Reflectance (%)	Transmittance (%)	Absorption (%)	Reflectance (%)	Transmittance (%)				
Gradation	Illumina g	SH2FGIMg	79 µm	0.74	11	60	29	13	63	1 or less	5.9	1270	30
	Illumina	SH2FGIM	83 µm	0.70	14	48	38	19	49	1 or less	5.9	1270	30
	Aeria	SH2FGAR	70 µm	0.86	10	69	21	12	75	1 or less	5.9	1270	30
	Lontano	SH2FGLO	74 µm	0.66	17	52	32	21	58	1 or less	5.9	1270	30
	Tsurugi	SH2FGTG	74 µm	0.67	16	53	31	20	58	1 or less	5.9	1270	30
Stripe	Nokto	SH2CSNK	75 µm	0.30	6	11	83	7	12	1 or less	5.9	1270	30
	Radius	SH2CSRD	76 µm	0.25	6	6	88	7	6	1 or less	5.9	1270	30
	Shutie	SH2FGST	80 µm	0.69	17	49	35	21	52	1 or less	5.9	1270	30
	Shutie Black	SH2BKST	72 µm	0.70	6	45	49	6	49	1 or less	5.9	1270	30
	Arpa	SH2FGAP	80 µm	0.66	17	45	38	22	26	1 or less	5.9	1270	30
	Arpa Black	SH2BKAP	72 µm	0.59	6	30	64	7	30	1 or less	5.9	1270	30
	Fine	SH2FGFN	80 µm	0.62	19	42	39	25	46	1 or less	5.9	1270	30
	Seattle	SH2DGST	95 µm	0.86	9	68	23	12	73	1 or less	5.9	1270	30
Border/Transparent	Lattice	SH2FGLT	75 µm	0.60	19	37	43	26	34	1 or less	5.9	1270	30
	Lattice g	SH2FGLTg	83 µm	0.71	11	56	33	13	57	1 or less	5.9	1270	30
	Slat	SH2FGSL	75 µm	0.60	19	37	43	26	34	1 or less	5.9	1270	30
	Slat g	SH2FGSLg	83 µm	0.68	12	53	35	15	53	1 or less	5.9	1270	30
	Pxela	SH2FGPX	75 µm	0.75	14	56	31	17	57	1 or less	5.9	1270	30
	Paracell	SH2FGPR	75 µm	0.69	15	48	37	19	48	1 or less	5.9	1270	30
	Leise	SH2FGLS	79 µm	0.94	7	74	19	8	74	1 or less	5.9	1270	30
	Transparent (iris phenomenon counteracting product)	SH2CLAR	77 µm	0.94	7	77	16	9	88	1 or less	5.9	1016 1270 1524	60
Transparent Frosted Glass (6 mm thick) Data from glass manufacturer as of April 2006				0.96	7	80	13	8	89	61	5.9		

	Name	Product No.	Film Thickness (Excluding release liner)	Shading Coefficient	Sunlight			Visible Light		UV Transmittance (%)	Heat Transmission Coefficient (W/m <sup>2</sup> K)	Roll Width (mm)	Length (m)
					Reflectance (%)	Transmittance (%)	Absorbion (%)	Reflectance (%)	Transmittance (%)				
Prism/Dot	Prism Noir	SH2CSPN	77 µm	0.48	6	30	64	7	29	1 or less	5.9	1270	30
	Prism Silver	SH2CSPS	75 µm	0.40	40	30	30	49	34	1 or less	5.9	1270	30
	Astral Silver	SH2CSAS	77 µm	0.19	51	9	40	63	11	1 or less	5.9	1270	30
	Cielo	SH2FGCE	70 µm	0.69	15	48	38	19	45	1 or less	5.9	1270	30
	Luna 6	SH2PCL6	83 µm	0.67	15	44	41	21	44	1 or less	5.9	1270	30
	Vista	SH2FGVI	80 µm	0.80	13	61	26	16	69	1 or less	5.9	1270	30
	Luna 9	SH2PCL9	83 µm	0.63	16	39	45	23	37	1 or less	5.9	1270	30
	Aura 9	SH2PCA9	79 µm	0.94	7	83	10	8	83	1 or less	5.9	1270	30
Fabric/Japanesepaper	Linen	SH2FGLN	73 µm	0.74	12	60	28	15	62	1 or less	5.9	1270	30
	Altair	SH2FGAT	83 µm	0.73	12	52	36	16	52	1 or less	5.9	1270	30
	Vega	SH2FGVG	83 µm	0.71	12	49	39	16	48	1 or less	5.9	1270	30
	SAGANO	SH2PTSA	75 µm	0.75	12	55	33	16	53	1 or less	5.9	1270	30
	YAMATO	SH2PTYA	75 µm	0.75	11	54	35	15	52	1 or less	5.9	1270	30
	RIKYU	SH2PTRK	100 µm	0.69	13	47	40	18	47	1 or less	5.9	1270	30
Frosted/Mat	ESSEN	SH2EMES	100 µm	0.67	19	48	33	23	55	1 or less	5.9	1270	30
	LAUSANNE	SH2EMLA	100 µm	0.90	8	72	20	9	82	1 or less	5.9	1016 1270	30
	OSLO	SH2EMOS	100 µm	0.89	8	71	21	9	77	1 or less	5.9	1016 1270	30
	CHAMONIX	SH2EMCH	100 µm	0.67	20	47	33	29	47	1 or less	5.9	1270	30
	OpaqueWhite	SH2MAOW	140 µm	0.29	41	8	51	52	6	1 or less	5.9	1250	30
	Glace	SH2MAGL	81 µm	0.69	12	55	33	15	55	1 or less	5.9	1270	30
	FineCrystal	SH2FNCR	85 µm	0.93	7	75	18	8	83	1 or less	5.9	1270	30
	MatCrystal2	SH2MACRX2	126 µm	0.92	6	74	20	7	85	1 or less	5.9	1270	30
	MatCrystal i	SH2MACRi	90 µm	0.91	8	73	19	8	83	1 or less	5.9	1270	30
	Milkywhite	SH2MAML	72 µm	0.75	13	54	33	17	59	1 or less	5.9	1016 1270 1524	60
	Luce	SH2FGLU	83 µm	0.59	17	35	48	25	31	1 or less	5.9	1270	30
MulkyMilky	SH2MAMM	82 µm	0.55	20	32	48	27	28	1 or less	5.9	1270 1524	30	
Transparent Frosted Glass (6 mm thick) Data from glass manufacturer as of April 2006				0.96	7	80	13	8	89	61	5.9		

The above data are not guaranteed.

The product specifications may be changed without prior notice for further improvements.