



Scotchshield™ Ultra Solar Safety Window Film

Ultra Night Vision S25

1. Product Description

3M™ Scotchshield™ Ultra Night Vision S25 is a combined solar and safety window film consisting of a multilayered, tear-resistant safety film combined with a high performing solar control Night Vision film.

2. Applications

3M™ Scotchshield™ Ultra Solar Safety films are intended for interior application on flat glass substrates.

3. Typical Properties

Technical information provided consists of typical product data and should not be used for specification purposes. Unless otherwise noted, all tests are performed at room temperature.

3M™ Scotchshield™ Ultra solar safety window films have been tested and classified according to EN 12600 Pendulum impact resistance and ASTM international blast standards.

Product construction	
Material base, solar	Metallized PET
Adhesive	Pressure sensitive acrylic
Material base, safety	Multi-layered PET
Adhesive	Pressure sensitive acrylic
Protective liner	Siliconized PET

Typical Performance Properties								
Film Type	Film Thickness	Tensile Strength according to EN 527-2/1B/50		Elongation according to EN 527-2/1B/50		Tear resistance according to EN 34-1/B1		Abrasion resistance according to D1003 and ASTM D1044
	Micron (μm)	MPa	MPa	%	%	Nmm	Nmm	Delta Haze
		Machine direction	Transverse direction	Machine direction	Transverse direction	Machine direction	Transverse direction	%
Ultra NV S25	210	185	145	110	100	1000	850	< 5

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Typical Performance Properties according to EN 410									
Glass type	Film Type	Visible Light			Total Solar Energy Rejected	G Value (SHGC)	UV Block	Heat Gain Reduction	Glare Reduction
		Reflected (interior)	Reflected (exterior)	Transmission					
Single Pane		%	%	%	%		%	%	%
Clear	No Film	9	8	89	19	0.82	NA	NA	NA
	Ultra NV S25	7	19	24	60	0.40	99.9	51	73
Tinted	No Film	6	6	53	37	0.63	NA	NA	NA
	Ultra NV S25	7	10	15	62	0.38	99.9	40	73
Double Pane									
Clear	No Film	15	15	79	30	0.70	NA	NA	NA
	Ultra NV S25	8	24	22	50	0.50	99.9	28	73
Tinted	No Film	13	8	47	49	0.51	NA	NA	NA
	Ultra NV S25	8	11	13	62	0.38	99.9	24	73

4. User Information

4.1 Shelf Life & Storage (prior to application)

Shelf life is 5 years from the manufacturing date. Material should be stored in its original packaging, laying in a horizontal orientation, away from direct sunlight. Heavy objects should not be placed on top of it to avoid damaging the product. Recommended storage conditions are 21°C and 40 – 50% relative humidity. Avoid extreme temperature ranges in storage.

4.2 Application

Recommended substrate	Glass (as described in EN 15755-1)
Recommended surface	Flat to simple curved
Application method	Suitable for wet application or dry, semi-automatic lamination
Application temperature	From +4°C to + 45°C
Service temperature	From - 40°C to + 80°C
Edge sealing	Not necessary
Drying Time	Final adhesion is dependent of film thickness and prevailing drying conditions. Typical cure time for films > 200 µm < 300 µm = 60 days. Please refer to local instructions for details

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4.3 Maintenance and Cleaning

Use a cleaning agent designed for high quality glass surfaces. The cleaning agent must be wet and non-abrasive with a pH value between 6 and 8 (neither strongly acidic nor strongly alkaline).

5. Additional Information

To request additional product information see address below.

Important Notice

All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluates the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method or application.

Values presented have been determined by standard test methods and are average values not meant to be used for specification purposes.

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