

Commercial Solutions Division **3M[™] Scotchshield[™] Window Films** Safety and Security Window Film Ultra S600 Product Pullation

Product Bulletin

1. Product Description

3M™ Scotchshield™ Ultra S600 is a multilayered, tear-resistant safety window film.

2. Applications

3M[™] Scotchshield[™] Ultra safety film is intended for interior application on flat glass substrates.

3. Typical Properties

Technical information provided below 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 S600 window film has been tested and classified according to EN 12600 Pendulum Impact Resistance, EN 13501 Behaviour on exposure to fire in buildings, EN 45545-2 Behaviour on exposure to fire in rail applications and GSA international safety standards.

3M[™] Scotchshield[™] Ultra safety and security window films can be combined with 3M[™] Impact Protection Attachment Systems (IPP or IPA) for additional safety and security. Glazing systems vary. Contact 3M for more information.

These are indicative values for 3M[™] Window Film products.

Product construction		
Material base	Multi-layer, polyester	
Adhesive	Pressure sensitive acrylic	
Protective liner	Siliconized PET	

Typical Performance Properties according to EN 410					
Film Type	Film Thickness	Visible Light Transmission (on 6 mm clear glass)	UV Block		
	Micron (µm)	%	%		
Ultra S600	160	86	99.9		

Typical Performance Properties							
Film Type	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
	MPa	MPa	%	%	Nmm	Nmm	Delta Haze
	Machine direction	Transverse direction	Machine direction	Transverse direction	Machine direction	Transverse direction	%
Ultra S600	225	193	120	95	855	877	< 5

The values above are the results of illustrative lab test measurements and shall not be considered as a commitment from 3M.

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 $+21^{\circ}$ C and 40 - 50% relative humidity. Avoid extreme temperature ranges in storage.

The shelf life as defined above remains an indicative and maximum data, subject to many external and non-controllable factors. It may never be interpreted as warranty.

4.2 Application

These are indicative values for 3M[™] Window Film products.

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 on film thickness and prevailing drying conditions. Typical cure times for films > 100 μm < 200 μm = 60 days. Please refer to local instructions for details.

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. Remarks

This bulletin provides technical information only. To request additional product information see address below.

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.

Responsible for this technical bulletin:



Commercial Solutions Division Hermeslaan 7 1831 Diegem, Belgium www.3mgraphics.com/eu

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