

## Renewable Energy Division

3M™ Scotchshield™ Safety and Security Window Film Ultra Series



Be on the  
safe side



## 3M™ Scotchshield™ Safety and Security Window Film Ultra Series

- Impact protection against flying or broken glass
- Multilayer bomb blast mitigation technology
- Increased peace of mind with market leading tear resistance
- Superior protection against forced entry and civil unrest
- Clear films that blocks up to 99.9% of UV to reduce fading

# Ultra Series

## Description

**3M™ Scotchshield™ Ultra S600 and Ultra S800** are designed for use on the interior surface of windows. They are composed of alternating stacks of transparent and weather stable polyester film, scratch resistant surface and a strong acrylic adhesive. The high tensile strength and elongation at break properties, plus market leading tear strength (Graves tear), significantly increase resistance of the glazing system to impact. A superior adhesive also results in market leading fragment retention. Additionally the films also significantly reduce the transmission of UVA and UVB rays, which are the main cause of fading.

3M's **Ultra Series** provide an effective protection from injuries to persons or damage to items caused by fragments of broken glass. In the case of glass breakage, the fragments are held together by strong acrylic adhesives. This technology can mitigate bomb blasts as well as provide superior protection against forced entry, civil unrest and other impacts.

**Scotchshield™ Ultra S600 and Ultra S800** are certified impact resistant according to EN 12600. Both films are also rated Class A fire resistant, according to ASTM E84.

## Features (on 6 mm clear glass)

Visible Light Transmission 87-88%  
 UV rays blocked according to EN410 99.9%

## Film properties

Colour Clear  
 Material Multilayer polyester  
 Adhesive Pressure sensitive acrylic  
 Top coating Scratch resistant hard coat

## Installation

3M Window films are installed using water and a soap solution. Full adhesion is reached after approximately 20 days at 18°C (in dry conditions).

## Cleaning

3M Window films may be cleaned 30 days after installation using ordinary window cleaning agents and avoiding the use of abrasive particles. Do not use rough sponges, cloths or brushes. Synthetic sponges, soft wipes or rubber squeegee cleaners are recommended.

Film Type	Film Direction	Film Thickness	Visible Light Transmitted (on clear 6mm glass) according to EN410	Tensile Strength and Elongation according to ISO EN 527-3/2/50		Tear Resistance according to DIN ISO 34-1 Method B (a)	Peel Adhesion on glass according to EN 28510-2	Abrasion Resistance according to EN15752-1
				Tensile @ Break (MPa)	Elongation @ Break (%)	Graves Tear Resistnce (N mm)	Peel strength (N/25mm)	Delta Haze (%)
Scotchshield™ Ultra S600	Machine	150	88	350	110	900	>30	<5
	Transverse			350	95	900		
Scotchshield™ Ultra S800	Machine	200	87	430	110	1000	>30	<5
	Transverse			430	95	1000		

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