

3M™ Safety & Security Film ULTRA S150

Description

3M™ Safety Film Ultra S150 is designed for use on the inside surface of windows. This film has a unique multilayer polyester construction. Ultra Safety Films are 32 times more resistant against tearing than other safety films of the same thickness. This results in a significant increase in the resistance against break-ins through the filmed glazing system. Additionally, **3M™ Safety Films** reduce the amount of UV rays being transmitted, which are the main cause of fading.

3M™ Safety Films provide an effective protection against injuries to persons or damage to items caused by the fragments of broken glass. In the case of glass breakage, the fragments are held on the film by the strong acrylic adhesive system.

3M™ Safety Film Ultra S 150 has been tested and approved according to EN 12600 (Pendulum test). It is classed as 3B3 on 4 mm float glass. The **3M™ Safety Film Ultra S 150** is approved for use in vehicles according to ABG No.D-5209 in Germany and CH-KO1-06129 in Switzerland

Features (on 6 mm clear glass)

UV rays blocked: 98 %

Structure of the film

Thickness:	0,05 mm / 50 µm
Colour:	Clear
Material of the film:	Polyester
Adhesive:	Special 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.

Glass type	Film Type	Visible Light Transmisson %	Visible Light Reflection Interior %	Tensile Strength ASTM D882-95a	Elongation at break ASTM D882-95a	Break strength ASTM D882-95a	Puncture Propagation ASTM D2582-03	Tear Resistance ASTM D 1004-95a
Single Pane				N/ 25,4 mm	N/25,4 mm	N/25,4mm		
Clear	No Film Ultra S150	88 % 87 %	8 % 11 %	206 N/mm	140 %	27 kg	0,91 kg	>158 kg
Tinted	No Film Ultra S150	50 % 49 %	5 % 7 %	206 N/mm	140 %	27 kg	0,91 kg	>158 kg
Clear	No Film Ultra S150	78 % 77 %	14 % 17. %	206 N/mm	140 %	27 kg	0,91 kg	>158 kg
Tinted	No Film Ultra S150	45 % 47 %	8 % 8 %	206 N/mm	140 %	27 kg	0,91 kg	>158 kg

General notes:

All **3M Safety films** have been tested to EN12600 and/or EN356 as appropriate. For detailed information and relevant certification for any specific project, please contact your local 3M specialist.

All technical data is based on a combination of relevant European test methods and/or US test methods. Before using this product the customer / applicator must ensure the product is suitable to be used for the intended purpose. If there is any uncertainty, please check with your local 3M Window Film specialist. All issues



Renewable energy Division
Window Films
www.3M.com/windowfilms

Your local Window Film Dealer:



regarding warranty and liability for the product and the effect of its use are governed in accordance with the provisions of the appropriate contract of sale unless local laws dictate otherwise.

3M™ Safety & Security Film

ULTRA S150

- **Increases protection from flying or broken glass.**
- **Deters smash and grab burglaries.**
- **Reduces fading caused by UV radiation.**
- **Helps preserve the appearance of furniture and fabrics.**
- **The abrasion resistant surface maintains a good looking appearance longer.**