



Be on the
safe side



3M™ Safety and Security Window Film - Safety Series

- Impact protection against flying or broken glass
- Protection against forced entry and civil unrest
- Resistance against graffiti and vandalism
- Resistance against scratches and abrasions
- Clear films that blocks up to 99% of UV to reduce fading

Safety Series

Description

3M's **Safety Series** is designed for use on the interior surface of windows. They are composed of transparent and weather stable polyester films, scratch resistant surface and a strong acrylic adhesive. The high tensile strength and elongation at break properties, increase resistance of the glazing system to impact. The films also significantly reduce the transmission of UVA and UVB rays, which are the main cause of fading.

S40, S70, S80 and S140 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 provides protection against trips and falls, forced entry, civil unrest and other impacts, plus graffiti and vandalism as a sacrificial layer.

All **Safety Series** films are certified impact resistant according to EN 12600 and S140 to EN 356. S40 and S70 were fire tested and approved for use in trains running in tunnels and underground according to EN 45545 Part 2. All films are rated Class A fire resistant, according to ASTM E84.

Features (on 6 mm clear glass)

Visible Light Transmission	85-87%
UV rays blocked	98-99%

Film properties

Colour	Clear
Material	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 Thickness	Visible Light Transmitted (on clear 6mm glass)	Tensile Strength and Elongation according to ISO EN 527-3/2/50		Tear Resistance according to ISO EN 34-1	Abrasion Resistance according to ASTM D1003 and ASTM D1044
			T&S @ Break DW (n/mm ²)	Elongation @ Break DW (%)		
	Micron (µm)	(%)			Tear Resistance DW (N/mm)	Delta Haze (%)
Safety S40	100	87	>125	>100	>7	<5
Safety S70	175	86	>120	>80	>7	<5
Safety S80	200	86	>100	>50	>7	<5
Safety S140	350	85	>100	>30	>7	<5

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