

## **Commercial Solutions Division**

# 3M<sup>™</sup> Safety Window Film Safety S140

**Product Bulletin** 

## 1. Product Description

3M™ Safety Window Film Safety S140 is a transparent polyester film with a durable scratch resistant surface and a strong acrylic adhesive.

## 2. Applications

3M™ Safety Window Film is intended for interior application on flat glass substrates.

# 3. Typical Properties

3M™ Safety Window Film S140 has been tested and classified according to EN 356 Burglary Resistance and EN 13501 Behaviour on exposure to Fire in Buildings and GSA International Safety Standards.

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

Product construction	
Material base	Transparent 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)	%	%		
Safety S140	350	85	99		

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	Transverse	Machine	Transverse	Machine	Transverse	%
	direction	direction	direction	direction	direction	direction	/0
Safety S140	114	170	135	75	525	585	<5

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

#### **User Information** 4.

#### 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.

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	
Application guidelines	Use a firm, narrow squeegee e.g. Blue Max 12.7cm. Use both hands to apply consistent, firm pressure across the squeegee blade. Overlap 50% from previous stroke. Remove as much water as possible in one pass.	
Service temperature	From - 40°C to + 70°C	
Edge sealing	Not necessary	
Drying Time	Final adhesion is reached after approximately 140 days at +18°C and dry conditions. 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.

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