

## Commercial Solutions Division

# 3M™ Safety Window Film

## Safety S40

### Product Bulletin

## 1. Product Description

3M™ Safety Window Film S40 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 S40 has been tested and classified according to EN 12600 Pendulum impact resistance, EN 13501 Behaviour on exposure to Fire in Buildings and EN 45545 -2, Behaviour on exposure to fire in Rail applications. 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<br>(on 6 mm clear glass) | UV Block (on 6 mm clear glass) |
|                                                    | Micron (µm)    | %                                                   | %                              |
| Safety S40                                         | 100            | 87                                                  | 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 direction                            | Transverse direction | Machine direction                      | Transverse direction | Machine direction                       | Transverse direction | %                                                     |
| Safety S40                     | 150                                          | 175                  | 144                                    | 117                  | 155                                     | 135                  | <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°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 30 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.

Responsible for this technical bulletin:

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