

# PRODUCT DATA SHEET

## Avery Dennison® Exterior Clear Safety Films

Issued: 10/2021

### Introduction

Avery Dennison® SF Clear X window films feature exceptional clarity, low reflectance and high levels of UV protection.

### Conversion

For conversion information please review the Technical Bulletin "Avery Dennison® Safety Window Films".

### Recommendations

These exterior safety films provide an additional level of protection from the external side of the window, ensuring that glass shards do not injure passing pedestrians. The transparent films offer excellent clarity, low reflectance and high UV protection, and are available in two different thicknesses.

### Features

- » Substrate compatibility with glass or mirrors
- » Superb optical clarity for no compromise vision
- » Forced entry, break-in protection



#### Face Film

SF Clear 4 mil X; SF Clear 7 mil X translucent PET with exterior durable SR hard coat advanced PS adhesive system



#### Adhesive

Pressure sensitive Permanent – Solvent based acrylic



#### Backing

PET



#### Durability

5 years (vertical) and 3 years (horizontal/sloped)<sup>1)</sup>



#### Shelf Life

When stored in original packaging upon arrival at the customer: 2 years. Recommended Storage conditions are 20 °C (± 2 °C) with 50 %RH (± 5%).

### Certification:

|                    | Norm           | SF Clear 4 mil X | SF Clear 7 mil X |
|--------------------|----------------|------------------|------------------|
| Fire Certification | DIN EN 13501-1 | B-s1, d0         | B-s1, d0         |
| Impact             | EN 12600       | 2B2              | 1B1              |

<sup>1)</sup> Warranted Durability

The durability is based on middle European exposure conditions. Actual performance life will depend on substrate preparation, exposure conditions and maintenance of the marking. For instance, in the case of signs facing south; in areas of long high temperature exposure such as southern European countries; in industrially polluted areas or high altitudes, exterior performance will be decreased. With regard to Avery Dennison Architectural Window Film Products, the durability shall not differ between the climatic zones, but the same durability shall apply to all climatic zones

## Physical Characteristics

### Mechanical Properties:

|                           | SF Clear 4 mil X | SF Clear 7 mil X |
|---------------------------|------------------|------------------|
| Thickness                 | 4 mil            | 7 mil            |
| Tensile Strength at Break | 28,500 PSI       | 26,000 PSI       |
| Break Strength            | 112 lb/inch      | 180 lb/inch      |
| Elongation at Break       | 125%             | 140%             |
| Peel Strength             | 7 lb/inch        | 7 lb/inch        |

### Optical & Solar Properties:

|                                  | SF Clear 4 mil X | SF Clear 7 mil X |
|----------------------------------|------------------|------------------|
|                                  | Single Pane      | Single Pane      |
| Visible Light Transmitted %      | 88               | 88               |
| Visible Light Reflected (Int) %  | 10               | 11               |
| Visible Light Reflected (Ext) %  | 10               | 11               |
| U V Block %                      | 99               | 99               |
| Total Solar Energy Reflected %   | 10               | 9                |
| Total Solar Energy Transmitted % | 80               | 80               |
| Total Solar Energy Absorbed %    | 10               | 11               |
| Shading Coefficient              | 0,96             | 0,95             |
| Total Solar Energy Rejected %    | 17               | 17               |
| Solar Heat Gain Coefficient      | 0,83             | 0,83             |
| U-Value Winter                   | 1,04             | 1,04             |
| K-Value Winter                   | 5,91             | 5,91             |
| Glare Reduction %                | 2                | 2                |

## Important

Information on physical and chemical characteristics and values in this document are based upon tests we believe to be reliable and do not constitute a warranty. They are intended only as a source of information and are given without guarantee and do not constitute a warranty. Purchasers should independently determine, prior to use, the suitability of this material to their specific use.

All technical data are subject to change. In case of any ambiguities or differences between the English and foreign versions of this document, the English version shall be prevailing and leading.

Avery Dennison warrants that its Products meet its specifications. Avery Dennison gives no other express or implied guarantees or warranties with respect to the Products, including, but not limited to, any implied warranties of merchantability, fitness for any particular use and/or non infringement. All Avery Dennison products are sold with the understanding that the purchaser has independently determined the suitability of such products for its purposes. The period of warranty is one (1) year from the date of shipment unless expressly provided otherwise in the product data sheet. All Avery Dennison's products are sold subject to Avery Dennison's general terms and conditions of sale, see <http://terms.europe.averydennison.com>.

Avery Dennison's aggregate liability to Purchaser, whether for negligence, breach of contract, misrepresentation or otherwise, shall in no circumstances exceed the price of the defective, non-conforming, damaged or undelivered Products which give rise to such liability as determined by net price invoices to Purchaser in respect of any occurrence or series of occurrences. In no circumstances shall Avery Dennison be liable to Purchaser for any indirect, incidental or consequential loss, damage or injury, including without limitation, loss of anticipated profits, goodwill, reputation, or losses or expenses resulting from third party claims.

© 2021 Avery Dennison Corporation. All rights reserved. Avery Dennison and all other Avery Dennison brands, this publication, its content, product names and codes are owned by Avery Dennison Corporation. All other brands and product names are trademarks of their respective owners. This publication must not be used, copied or reproduced in whole or in part for any purposes other than marketing by Avery Dennison.