

# PRODUCT DATA SHEET

## Avery Dennison<sup>®</sup> Paint Protection Film SPF X3

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### Introduction

AD Supreme Protection Film SPF-X3 is an engineered thermoplastic polyurethane film in transparent clear gloss finish, designed to protect a vehicle's finish against stone chips, road debris, insect stains, small to medium scratches, chemical stains and weathering, without degrading the original paint. SPF-X3 has a "self-healing" top coat, which helps small scratches in the film disappear when film is exposed to heat. The top coat of SPF-X3 has been specially designed to enhance its stain resistance, make the film easier to clean and maintain, and reduce potential discoloration or yellowing from stains or interaction with chemicals.

### Conversion

SPF-X3 is designed for vehicle paint and painted surface protection purposes and is easy to size by manual cutting during application or digital cutting plotters. It is also possible to apply SPF-X3 on top of pre-existing and applied Avery Dennison Supreme Wrapping<sup>™</sup> Film. Material should be applied using the wet application method. For more information please refer to TB. 6.0 Application Instructions for Avery Dennison<sup>™</sup> SPF Series.

Note: Always remove the protective PET top sheet immediately after cutting material from the roll or before converting using a plotter or flatbed cutter. Always store unused material on the roll and tightly wound and secure.

### Recommendations

- » Protection of the highly sensitive external surfaces of the vehicle, such as bumper, side mirrors, hood & wheel arches.
- » Protection of painted internal metal surfaces, such as luggage racks or chairs in busses or trains.
- » Protection of painted metal surfaces in high traffic areas, such as reception desks, door impact areas, wall panels and more.

### Features

- » SPF-X3 topcoat enhances stain resistance, eases cleaning and minimizes yellowing. Many stains such as motor oil, sharpie marker and mustard can be cleaned just with a dried microfiber cloth.
- » Heat activated self-healing top coat provides good scratch resistance & recovery
- » Protection of painted surfaces from stone chips, road debris, insect stains and weathering
- » Exceptional visual properties - enhancing the look of the vehicle; optical clarity & high gloss finish
- » Up to 10 years protection- maintaining the quality of vehicle finish
- » Premium grade, conformable thermoplastic polyurethane (TPU) film



#### Face Film

165 micron gloss clear top-coated thermoplastic polyurethane (TPU) protected with PET sheet



#### Adhesive

Permanent, acrylic based



#### Backing

PET liner



#### Durability

Zone 1 vertical, 10 years



#### Shelf Life

1 year Stored at 22°C 50-55% RH

## Physical Characteristics

|  | Test method <sup>1</sup>                                  | Results   |               |  |
|--|---|---|---------------|--|
| <b>Product</b>                               |   |   |               |  |
| Caliper, facefilm including topcoat (micron) | ISO 534   | 165   |               |  |
| Caliper, facefilm + adhesive (micron)        | ISO 534   | 203   |               |  |
| Gloss (GU)                                   | ISO 2813, 60°   | >85   |               |  |
| Dimensional stability (max. mm)              | FINAT FTM 14  | 0.15  |               |  |
| Shelf life (years)                           | Stored at 22° C/50-55 % RH                                | 1   |               |  |
| <b>Adhesive</b>                              |   |   |               |  |
| Tensile strength (MPa)                       | ISO 527   | >18   |               |  |
| Elongation (%)                               | ISO 527   | >250  |               |  |
| Adhesion, initial 180° 20 min (N/m)          | FINAT FTM-1, stainless steel                              | >550  |               |  |
| Adhesion, ultimate 180° 72 hours (N/m)       | FINAT FTM-1, stainless steel                              | >750  |               |  |
| <b>Temperature range</b>                     |   |   |               |  |
| Application temperature (Minimum: °C)        |   | 10  |               |  |
| Service temperature (°C to +°C)              |   | - 10 to 100   |               |  |
| <b>Chemical properties<sup>2</sup></b>       |   |   |               |  |
|  | Visual Inspection after exposure to following test fluids |   |               |  |
| Gasoline                                     | 30 min  | No significant change                                   |               |  |
| Car Wash solution                            | 30 min  | No significant change                                   |               |  |
| Diesel                                       | 30 min  | No significant change                                   |               |  |
| Heptane                                      | 30 min  | No significant change                                   |               |  |
| 10% Sulphuric acid                           | 30 min  | No significant change                                   |               |  |
| Solvent resistance                           | Applied to aluminium                                      | No effect exposed to: Isopropyl Alcohol / Water (20/80) |               |  |
| <b>Durability (years)<sup>3</sup></b>        |   |   |               |  |
|  | <b>Zone 1</b>   | <b>Zone 2</b>   | <b>Zone 3</b> |  |
| Vertical                                     | 10 years  | 8 years   | 6 years       |  |
| Horizontal                                   | 7 years   | 4 years   | 3 years       |  |
| Heat aging                                   | 500 h@90 °C   | No Significant Change                                   |               |  |
| Water Immersion                              | 500 h@90 °C   | No Significant Change                                   |               |  |

## 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.

1) Test methods: More information about our test methods can be found on our website.

2) Prolonged immersion in gasoline and similar fluids is not recommended.

3) Durability means that the products, subject to the limitations herein and Avery Dennison Product Data Sheets and Bulletins, and applied to recommended surfaces, shall not deteriorate excessively such as excessive film discoloration, excessive yellowing, cracking, crazing, blistering, excessive gloss changes, or excessive dimensional change or loss of adhesion, due solely to not meeting Seller's Specifications. Written instructions and detailed descriptions of the conditions under which the Avery Dennison products are assumed to be used and maintained can be found in the relevant Data Sheets and bulletins as found on.

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