

PRODUCT DATA SHEET

Avery Dennison[®] Paint Protection Film SPF X3 DIR

Issued: 08/2024

Introduction

Avery Dennison Paint Protection Film SPF-X3 DIR 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 DIR 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 DIR has been specially designed to enhance its stain resistance, make the film easier to clean and maintain, and reduce potential discolouration or yellowing from stains or interaction with chemicals.

Conversion

SPF-X3 DIR 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 DIR on top of pre-existing and applied Avery Dennison Supreme Wrapping Film should be applied using the wet application method. For more information please refer to TB. 6.6 Application Instructions for Avery Dennison SPF DIR 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 DIR 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 ¹	Results
Product		
Caliper, facefilm (micron)	ISO 534	165
Caliper, facefilm + adhesive (micron)	ISO 534	203
Gloss (GU)	ISO 2813, 20°	>85
Dimensional stability (mm max.)	FINAT FTM 14	0.15
Shelf life (years)	Stored at 22° C/50-55 % RH	1
Adhesive		
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
Temperature range		
Application temperature (Minimum: °C)		10
Service temperature (°C to +°C)		-40 to 100
Chemical properties²		
	Visual Inspection after exposure to following test fluids	
Gasoline	30min	No significant change
Car wash solution	24h	No significant change
Diesel	24h	No significant change
Heptane	30min	No significant change
10% sulphuric acid	24h	No significant change
Motor oil	24h	No significant change
Solvent resistance	30min	No effect when exposed to Isopropyl Alcohol
Other tests		
Heat aging	500h@90 °C	No significant change
Water Immersion	400h@40 °C	No significant change
Warranty for Zone 3**	10 years	

** Please find more information on the conditions for warranty [here](#)

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.

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