Permanent - StaFlat™

Revision: 6 Dated: 03/25/19

#### Uses:

Avery Dennison® SF 100 polyester films are high gloss films which are clear, white or metalized. These films are top coated for excellent print receptivity, and provide a strong tear resistant surface. Environmentally responsible alternative films compared to traditional self-adhesive PVC films.



Face: Polyester



Adhesive: Permanent Clear Acrylic



Liner: 90# StaFlat™



Durability: Up to 2 years

Application Surfaces: Flat

#### Features:

- Dimensionally stable liner for easy converting
- High gloss finish
- Excellent conversion on CAD plotters
- Easy cutting & weeding
- Excellent dimensional stability
- Excellent UV, temperature, humidity, and salt-spray resistance

#### Conversion:

- Flatbed Sign-Cutting
- Drum Roller Sign-Cut
- Steel Rule Die-Cut
- UV Inkjet

Screen Printing

- **Common Applications:**
- Architectural Signage
- Directional Signage
- Window Graphics
- Emergency Vehicles
- Trains & Light Rail
- Buses

- Outdoor Advertising
- Nameplates
- Emblems

### **Product Data Sheet**

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## **Physical Characteristics:**

Property	Measurement	Typical Value			
Caliper, face					
		1.0 mil (25 µm)	SF100-841-S Metallized Brushed Chrome (1840SFS) SF100-846-S Metallized Chrome Mirror (1846SFS)		
		2.0 mil (50 µm)	SF100-103-S Clear (1861SFS) SF100-242-S Metallized Brushed Gold (1842SFS) SF100-247-S Double Gold (1850S) SF100-248-S Gold Mirror (1848S)		
Caliper, adhesive		1.0 mil (25 µm)			
Dimensional stability		<0.015" (0.38 mm)			
Tensile at Yield		NA			
Elongation		NA			
Gloss	Hunter Gloss @ 60 degrees	90 GU	90 GU		
Adhesion:	15 min 24 hr	3.0 lbs/in (525 N/m) 3.5 lbs/in (613 N/m)			
Flammability	Self Extinguishing				
Shelf-Life		1 year from the date of manufacture (when stored at the following temperatures and humidity conditions 68°-77° F (20° - 25° C) and 50±5% R. H.)			
Durability	Vertical Exposure	Reference color and warranty charts in this data sheet.			
Min. Application Temperature		60° F (16° C)			
Service Temperature		-40° to 257°F (-40° to 125° C) (Reasonable range of temperatures which would be expected under normal environmental conditions).			
Chemical resistance		Resistant to most mild acids, alkalis, and salt solutions			
Compliance	California Prop 65		se products contain chemicals known to the State of se cancer and birth defects or other reproductive harm.		

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Data represents average values where applicable, and is not intended for specification purposes.

#### Warrantv:

This Warranty applies to the Product listed in this Data Sheet. All statements, technical information (including physical and chemical characteristics) and recommendations about Avery Dennison products are based upon tests believed to be reliable but do not constitute a guarantee or warranty. All Avery Dennison products are sold subject to the Purchaser's assent and agreement that Purchaser is responsible for, and has independently determined, the suitability of such products for its purposes or its customer's purposes. Avery Dennison products are warranted to be free from defects in material and workmanship (i) for two years from the date of manufacture, or (ii) from the date of manufacture until the expiration of the period stated on the specific Product Data Sheet in effect at the time of delivery. Such time periods are subject in either case to the proper storing and application of said product, and the failure to properly store or apply the product, including without limitation the failure to follow any applicable Instructional Bulletin, negates any warranty. It is expressly agreed and understood that Avery Dennison's sole obligation and Purchaser's exclusive remedy under this warranty, under any other warranty, express or implied, or otherwise, shall be limited exclusively to: (a) repair or replacement of defective product without charge at Avery Dennison's plant or at the location of the product (at Avery Dennison's election), or (b) in the event repair or replacement are not commercially practical, a credit amount up to the price of the product taking into account the defect in the product in Avery Dennison's sole discretion.

THE WARRANTY EXPRESSLY SET FORTH ABOVE IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR USE AND/OR NON-INFRINGEMENT. SELLER SPECIFICALLY DISCLAIMS AND EXCLUDES ALL OTHER SUCH WARRANTIES. NO WAIVER, ALTERATION, ADDITION OR MODIFICATION OF THE FOREGOING CONDITIONS SHALL BE VALID UNLESS MADE IN WRITING AND MANUALLY SIGNED BY AN OFFICER OF AVERY DENNISON.

AVERY DENNISON'S LIABILITY FOR DEFECTIVE PRODUCTS SHALL NOT EXCEED THE PURCHASE PRICE PAID THEREFORE BY PURCHASER AND IN NO EVENT SHALL AVERY DENNISON BE RESPONSIBLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES WHETHER FORESEEABLE OR NOT, CAUSED BY DEFECTS IN SUCH PRODUCT, WHETHER SUCH DAMAGE OCCURS OR IS DISCOVERED BEFORE OR AFTER REPLACEMENT OR CREDIT, AND WHETHER OR NOT SUCH DAMAGE IS CAUSED BY AVERY DENNISON'S NEGLIGENCE.

All sales and contracts for sale of Products are subject to Purchaser's assent and agreement to this Warranty. Avery Dennison hereby objects to any terms or conditions contained in any purchase order or other communication of any kind from the Purchaser that is conflicting, inconsistent or additional to this Agreement.

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#### Related Documents:

The following Avery Dennison literature will provide necessary information to the user for proper application, storage, and other requirements and is available upon request from your Avery Dennison representative or from the Avery Dennison website (<a href="www.graphics.averydennison.com">www.graphics.averydennison.com</a>).

Document Title	Reference Number
Substrate Cleaning and Preparation	Instructional Bulletin # 1.10
Storage, Maintenance and Cleaning of PVC Films	Instructional Bulletin # 1.20
Durability of Films	Instructional Bulletin # 1.30
Converting Tips for Sign Films	Instructional Bulletin # 2.10
Tips for Overlaminating, Premasking & Packaging Graphics	Instructional Bulletin # 5.50

### **Colors Cross Reference:**

KR = Kraft liner SF = StaFlat liner

SF100 Series Name	Item #'s	Vertical Durability Zone 1 Years
SF 100-242-S Brushed Gold Perm KR	1842S	Indoor
SF 100-248-S Perm KR Gold Mirror	1848S	Indoor
SF 100-247-S Perm KR Double Gold	1850S	1
SF 100-846-S Perm SF Chrome Mirror	1846SFS	2
PX 1070 Perm SF Bright Chrome (sheeted 27x20)	0064	2

SF100 Series Name	Item #'s	Vertical Durability Zone 1 Years
SF 100-840-S Perm SF Brushed Chrome	1840SFS	2
PX2072 Perm SF Brushed Chrome (sheeted 27x20)	0069	2
SF 100-103-S Perm SF Clear (2.0 mil)	1861SFS	2
SF 100-103-S Perm SF Clear (2.0 mil) (sheeted 27x20)	0059	2
SF 100-103-S Perm SF Clear (2.0 mil)	1860SFS	2

NOTE: Some color fade may occur in severe environmental areas. Reference IB 1.30 for durability guidelines.

#### Discontinued Colors as of 01/01/16:

SF100 Series Name	Item #'s	Vertical Durability Zone 1 Years
SF 100-101-S Perm SF White	1870SFS	2

SF100 Series Name	Item #'s	Vertical Durability Zone 1 Years
SF 100-848-S Perm SF Chrome Mirror (1.0 mil)	1847SFS	2

### Application:

Application on wet surfaces or using an application fluid (wet applied) may result in adhesive residues being left on the surface after removal when using the removable adhesive product. As no two surfaces are the alike, trials are recommended prior to use in order to ascertain clean removability.

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### Special Considerations:

Because of the unique properties and varieties of glass, special considerations must be considered for windows and graphic applications. Avery Dennison accepts no liability for glass breakage.

- Glass absorbs heat when exposed to sunlight. The degree of absorption across windows can vary because of shading, heating, and cooling ventilation, and insulation from window frames. These temperature differences across the window produce stress, which can cause glass breakage. The ability of glass to resist breakage because of temperature stress is affected by window size, glass thickness, glass treatments, quality, and design.
- Window cleaning methods also vary, from the type of cleaners used, to the washing methods employed. Specific chemicals used in window cleaners may affect the adhesion of pressure-sensitive graphics. Power washing methods may impact the adhesion of graphics, if the water pressure or temperature exceeds the graphics adhesion capability.

Revisions are italicized

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