Avery Dennison®
Automotive Window Film Shield 75

Revision: 2 Dated: 01/09/18

Introduction

Avery Dennison® AWF Shield 75 is an infrared spectrally selective film that rejects IR heat while allowing visible light through. This optically clear film uses nanotechnology to reject the infrared heat and solar energy without any visual distortion, noticeable darkening and reflectivity of vehicle window. The high VLT enables front- cabin installation for all-round protection.

Description

Film Series: Infrared spectrally selective film
Color: Light Blue
Technology: Nanotechnology combined with UV Stable Dye
Thickness: 50 micron (2mil)
Adhesive: Permanent- Solvent based acrylic
Liner: PET
Color Stable: Yes

Conversion

Product is designed for automotive window tinting purposes and is easy to size by manual cutting during application. Material should be applied using the wet application method.

Features:

- Infrared Spectrally Selective- rejects IR heat
- Easy & speedy installation/ great ease of handling
- Excellent solar performance, > 99.% UV block
- Superior aesthetics, optical clarity and color stability

Common Applications:
On the internal side of glass substrate of:

- Personal Vehicles
- Commercial and Fleet Vehicles

Before apply the product, the user shall determine the suitability of the product for its intended use. The user shall ensure that the application and the intended use of the product is in accordance with any and all applicable laws and regulations concerning the use of automotive window film, and user assumes all risk and liability in connection therewith.

Avery Dennison®
Automotive Window Film Shield 75

Revision: 2 Dated: 01/09/18

PRODUCT CHARACTERISTICS

Optical & Solar Properties:

	Shield 75
Visible Light Transmitted	**77%**
Visible Light Reflected	**10%**
Ultra Violet Block	**>99%**
Total Solar Energy Reflected	**8%**
Total Solar Energy Transmitted	**44%**
Total Solar Energy Absorbed	**48%**
IR Energy Rejection	**59%**
Selective IR Rejection	**83%**
Glare Reduction	**13%**
Shading Coefficient	**0.65**
Total Solar Energy Rejected	**44%**

Note: Performance results are calculated on 6mm clear glass using NFRC methodology and LBNL Window 5.2 software, and are subject to variations in process conditions within industry.

Shelf Life and storage conditions:

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

Warranty:

5 years

Avery Dennison®
Automotive Window Film Shield 75

Revision: 2 Dated: 01/09/18

DEFINITIONS

Visible Light Transmitted (VLT)
The percentage of total visible light (380-780 nanometers) to be passed through a glazing system. Test method - ASTM E 903-96.

Visible Light Reflected (VLR)
The percentage of total visible light to be reflected by a glazing system.
Test method - ASTM E 903-96.

Total Solar Energy Reflected
The percentage of total solar energy (300-2500 nanometers) to be reflected by a glazing system. Test method - ASTM E 903-96.

Total Solar Energy Transmitted
The percentage of total solar energy (300-2500 nanometers) to be passed through a glazing system.

Total Solar Energy Absorbed
The percentage of total solar energy (300-2500 nanometers) to be absorbed by a glazing system. Solar absorption is that portion of total solar energy neither transmitted nor reflected. Since solar transmittance and reflectance are measured directly, the following equation is used for calculating solar absorption. Test method - ASTM E 903. Total solar energy absorbed = 100% - (Total solar energy reflected) - (Total solar energy transmitted).

Selective IR Rejection
The percentage of IR radiation that does not directly transmit through a glazing system. Calculated as %SIRR = 100% - % Transmission (@780nm-2500nm).

IRER - IR Energy Rejection:
The percentage of energy rejected of Near Infrared as measured between 780-2500nm. This is the equivalent of the SHGC measuring only the NIR range, and is more accurate than the SIRR as it takes in consideration both reflected and absorbed energy reradiating .
Calculated as the TSER over 780-2500nm: %IRER = 100% - 100*SHGC (@780-2500nm)

Ultra Violet Block
The percentage of Ultra Violet radiation (300-380 nanometers) to be blocked by a glazing system. Ultraviolet is one portion of the total solar energy spectrum which greatly contributes to fading and deterioration of fabric and furnishings.

Shading Coefficient (SC)
The ratio of the solar heat gain through a given glazing system to the solar heat gain under the same conditions for clear, unshaded double strength window glass (DSA). Shading coefficient defines the sun control capability or efficiency of the glazing system.

Glare Reduction
Glare usually defined as being the difficulty of seeing in the presence of bright light such as direct or reflected sunlight or artificial light such as car headlamps at night. Window film can provide glare reduction of up to 95%.

Total Solar Energy Rejected (TSER)
Measures the window film's ability to reject solar energy in the form of visible light, infrared radiation and ultraviolet light. The higher the TSER number, the more solar energy is rejected away from the window.