

# Avery Dennison® VisiFlex™ V-8000 Series High Visibility Reflective Film

Issued: June 2019

Region: North America

Avery Dennison® VisiFlex™ V-8000 Series High Visibility Reflective Film is engineered to improve the day and nighttime visibility of emergency response, utility, and construction fleets. Highly reflective vehicle markings can improve detection and recognition, giving drivers more time to react safely and avoid a collision. Collision avoidance may help fleet managers contain costs through lower repair, maintenance, and insurance fees.

VisiFlex V-8000 Series offers durable, vibrant daytime colors. At night, its bold, high-quality microprismatic retroreflective elements efficiently return light at a wide range of angles. The single layer construction simplifies application, and eliminates the requirement for edge sealing.

Designed to be flexible, VisiFlex is purposely engineered for vehicle application, and offers excellent cutting and conformability for converters and installers.

## Features:

- Single layer construction does not require edge sealing
- Unique omnidirectional prisms not available in other products create high uniform brightness at night
- Easy to handle and apply, conforms to simple curves
- Withstands normal vehicle maintenance including pressure washing
- Digitally Printable<sup>1</sup>



**Performance:**  
See Page 2



**Durability:** Up to 7 years  
Vertical exposure only



**Orientation:** Omni-Directional



**Face:** Vinyl Retroreflective Film with Microprisms



**Adhesive:** Permanent Pressure Sensitive



**Liner:** 90 # Polycoated



**Application Surface\*:** Metal & Painted Metal;  
Flat, Simple Curves  
\*not for use on stainless steel or rivets

## Finishes:

- 48" x 25 yard Rolls
- 48" x 5 yard Rolls\*\*

\*\*In select regions

## Common Applications:

- Emergency Vehicles
- Utility Vehicles
- Fleet

## Product Availability:

Code	Color	Durability (years)
V-8000	White	7
V-8005	Blue	7
V-8007	Green	7
V-8008	Red	7
V-8013	Fluorescent Yellow-Green	3
V-8014	Fluorescent Orange	3

## Conversion:

- Thermal Die-cut
- Steel Rule Die-cut
- Latex Inkjet<sup>1</sup>
- Mild/Eco Solvent inkjet<sup>1</sup>
- Flat Bed Sign-cut
- Drum Roller sign-cut
- UV inkjet<sup>1</sup>
- Screen Print

<sup>1</sup>V-8000 White only

## Product Data Sheet

Page 1 of 3  
Graphics and Reflective Solutions  
7542 N. Natchez Ave  
Niles, IL 60714



[www.reflectives.averydennison.com](http://www.reflectives.averydennison.com)

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## Retroreflectivity:

Typical values for the coefficients of retroreflection ( $R_A$ )<sup>1</sup> for V-8000 are shown in Table A. The values are shown at 0° orientation<sup>2</sup>.

**Table A**

Observation Angle	0.2°			0.33°			0.5°			1.0°		
	5°	30°	45°	5°	30°	45°	5°	30°	45°	5°	30°	45°
White	400	200	80	275	175	75	125	100	50	55	35	10
Blue	30	15	5	18	10	5	12	8	4	7	3	2
Green	120	70	40	75	45	30	40	25	15	18	10	4
Red	80	35	10	55	25	8	25	18	8	10	4	2
FL Yellow-Green	425	175	75	250	150	65	115	90	45	50	25	10
FL Orange	175	80	25	100	65	20	50	30	15	20	10	3

## Colors and Specification Limits:

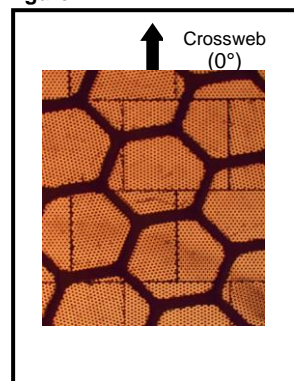
V-8000 meets the color and minimum luminance requirements for ASTM D4956 and CAST (HOSDB) Publication # 14/04.

Avery Dennison V-8000 typical retroreflectivity performance is comparable to the following specifications:

ASTM Type IV	Global
Class IV	China
SABS Type III	South Africa
NFPA 1901	North America

Avery Dennison suggests you obtain the current requirements from your local agency and ensure product conformance with such requirements. Your Avery Dennison Representative can assist you in this regard.

**Figure A**



<sup>1</sup> $R_A$  =  
candelas per lux per  
square meter (cd/lx/m<sup>2</sup>)

<sup>2</sup> As a datum for laboratory measurements 0° is identified in the crossweb direction. See **Figure A**.

## Application Information:

The following Avery Dennison literature provides information regarding proper application, storage, and other requirements. Find the latest information on the Avery Dennison website, [www.graphics.averydennison.com](http://www.graphics.averydennison.com). We encourage you to check our website periodically for updates.

<b>Subject</b>	<b>Number</b>
Substrate Cleaning and Preparation	IB 1.10
Storage, Maintenance and Cleaning of PVC Films	IB 1.20
Converting Tips for Sign Films	IB 2.20
Screen Print Recommendations	IB 3.00
Application Instructions of Avery Dennison Films	IB 4.00
Removal Instructions for Avery Dennison Cast, Calendered, Reflective, and Polyester Films	IB 4.10
Tips for Overlaminating, Premasking & Packaging Graphics	IB 5.50
Reflective Films on Stainless Steel	IB 6.11
V-8000 Quick Guide	IB 6.90

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Page 2 of 3  
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# Avery Dennison<sup>®</sup> VisiFlex<sup>™</sup> V-8000 Series

## High Visibility Reflective Film

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### Characteristics:

Property	Requirement	V-8000 Series Typical Values
Shelf-Life	NA	1 year from date of purchase when stored at the following conditions; 65°-75°F (18°-24°C) and 50% ± 5% R.H.
Typical Film Caliper* Includes liner	NA	21 – 26 mils (533 – 660 µm)
Min. Application Temperature	NA	60° F (16° C)
Service Temperature	NA	-10°F to +150°F (-23°C to + 65°C)
Peel Adhesion PSTC-2 12in/min, 90° peel angle	Substrate	
	Prepainted Panel	2.7 lb-f/in (0.47 N/mm)
	Stainless Steel	5.5 lb-f/in (0.96 N/mm)
Dimensional Stability ASTM D4956	Less than 1/8" change on 9x9 panel	Pass
Flexibility ASTM D4956 Wrap around 0.125" mandrel @ 32 F (0°C)	No Cracking	Pass
High Pressure Wash Test 45° angle, 1200 psi, 8 inch distance	No delamination, edge lift, cracking, or water penetration	Pass
Adhesion ASTM D4956 0.79kg 90° hanging weight	Less than 2" movement	Pass
Chemical Resistance LS300C Immersion in diesel fuel, xylene/mineral spirits mixture	No softening, dulling, color change, or adhesion loss	Pass
Corrosion Resistance .1NaOH solution immersed for 1 hr	No white corrosion, red rust, discoloration, delamination, flaking, checking, cracking, or blistering	Pass
Impact Resistance Room Temp ASTM D4956 Impact with 10 in-lb force and 5/8 inch tip at room temperature	No damage outside impact area	Pass

### Warranty:

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 reflective products are warranted to be free from defects in material and workmanship for one (1) year from the date of manufacture, unless stated otherwise in the applicable product data sheet.

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.

### Definitions:

**Durability:** means that the Product-- when used in a finished graphic, panel or sign situated outdoors, subject to the limitations herein and Avery Dennison Product Data Sheets and Instructional Bulletins, and applied to recommended surfaces-- will not deteriorate excessively such that the finished sign, panel or graphic is ineffective for its identification when viewed under normal conditions from the intended viewing distance.

**Vertical Exposure:** means that the face of the finished graphic is ±10° from vertical.

All sales and contracts for sale of Products are subject to Purchaser's assent and agreement to this Warranty. Avery Dennison hereby objects to and rejects 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.