

# PRODUCT DATA SHEET

## Avery Dennison® V-2000

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### Introduction

The V-2000 glass-beaded reflective film is an excellent, economical choice for non specification reflective applications and promotional signs. With an outdoor durability of up to 3 years, it provides premium benefits such as wide-angle reflectivity of incident light and impactful day and night visibility.

### Conversion

Avery Dennison V-2000 offers excellent weeding and cutting performance on a wide range of computer signmaking equipment. Avery Dennison V-2000-101 White Digital can be used on digital printing platforms. However, a print test prior to application is strongly recommended. Print profiles are available for the White Digital colour on most common printers (Latex, UV, Solvent or Eco-Solvent).

### Recommendations

Avery Dennison V-2000 is an economical choice of reflective products for applications such as highway maintenance vehicles, promotional and non-critical reflective signs.

### Features

- » Multi-functional (variety of colour options, sign cutting, screen printing, white is digitally printable)
- » Five standard colours are available: White Digital, Blue, Red, Orange and Yellow
- » The White Digital product is digitally printable on all standard digital printing platforms
- » Reflective, beaded technology
- » For flat & slightly curved applications
- » Edge-sealing is not required



#### Face Film

High-Gloss Retroreflective Film with Glass Microspheres:

- » White Digital: PVC/PET face film
- » Colours: Acrylics/PET face film



#### Adhesive

Permanent pressure sensitive



#### Backing

One side polyethylene-coated white kraft paper - 150 gsm



#### Durability

White Digital, Blue, Red: Up to 3 years outdoors (vertical exposure)

Orange: Up to 2 years outdoors (vertical exposure)

Yellow: Up to 1 year outdoors (vertical exposure)



#### Shelf Life

1 year from date of purchase (stored at 20°-25°C and 50%-55% R.H.)

## Physical Characteristics

Product	Test method <sup>1</sup>	Results
Caliper, facefilm Colours (µm)	ISO 534	127 – 178
Caliper, facefilm White Digital (µm)	ISO 534	127 – 178
Gloss (GU)	ISO 2813, 20°	>75
Applied Shrinkage (mm)	FINAT FTM 14 (70° Aluminium)	<0.9
Shelf life (years)	Stored at 20° C - 25° C/50-55 % RH	1
Durability <sup>2</sup> , Blue, Red, White Digital unprinted (years)	Vertical exposure	up to 3
Durability <sup>2</sup> , Orange (years)	Vertical exposure	up to 2
Durability <sup>2</sup> , Yellow (years)	Vertical exposure	up to 1
<b>Adhesive</b>		
Adhesion, initial (N/inch)	FINAT FTM-1, stainless steel	24.5
Adhesion, after 24 hours (N/inch)	FINAT FTM-1, stainless steel	26.3
<b>Temperature range</b>		
Application temperature (Minimum: °C)		18
Service temperature (°C to +°C)		-23 to 65
<b>Chemical properties<sup>3</sup></b>		
Water resistance	24 hours immersion	No effect
Detergent resistance	24 hours immersion	No effect
Gasoline resistance	1 hour immersion	No effect

## Minimum Coefficient of Retroreflection (RA) (cd/lx/m2)

Observation Angle α	Entrance Angle β1 (β2=0)	V-2000-101 White Digital	V-2000-235 Yellow	V-2000-440 Red	V-2000-688 Blue	V-2000-360 Orange
0.2°	-4°	50	25	8	3	12
0.33°	30°	6	3	1	0.5	1.5

## 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) Durability: The durability is based on middle European exposure conditions. Actual performance life will depend on substrate preparation, exposure

conditions and maintenance of the marking. For instance, in the case of signs facing south; in areas of long high temperature exposure such as southern European countries; in industrially polluted areas or high altitudes, exterior performance will be decreased..

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

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