

PRODUCT DATA SHEET

Avery Dennison® 5100 Diffuser Film

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Introduction

Avery Dennison 5100 Diffuser Films are premium quality cast vinyl films designed for use as a light diffuser. Avery Dennison 5100 Diffuser Films applied onto flexible and rigid substrates balance the light distribution of a backlit sign and eliminate the issue of hot spots. Avery Dennison 5130 Diffuser Film diffuses 30% of back lit light and blocks the remaining 70%. Avery Dennison 5160 Diffuser Film diffuses 60% of back lit light and blocks the remaining 40%.

Description

Facefilm:	50 micron premium, cast vinyl film
Adhesive:	permanent, clear, acrylic based
Backing paper:	white bleached kraft paper, 125 g/m ²

Conversion

Avery Dennison 5100 Diffuser Films offer excellent conversion using computer signcutting, handcutting and die cutting.

Features

- Excellent white diffusion uniformity in transmitted light, when applied to clear rigid substrates.
- Additional diffusion obtained, when used on white substrates.
- Excellent colour fastness and durability.
- Evens out the colour(s) of the sign.
- Creates different shades of colour.
- Superior dimensional stability.

Recommendations for use

- Light diffusion of graphics for internally illuminated signs and canopies.
- Application onto flexible and rigid substrates with flat and simply curved surfaces.

Note

Additional information can be found in technical bulletin 3.6: "Application instructions for Avery Dennison 5100 Diffuser Films and Avery Dennison 5300 Blockout Films on flat and rigid surfaces."

PRODUCT CHARACTERISTICS

Avery Dennison® 5100 Diffuser Films

Physical properties

Features

Caliper, facefilm
Caliper, facefilm + adhesive
Elongation
Dimensional stability

Test method¹

ISO 534
ISO 534
DIN 53455
DIN 30646

Results

50 micron
75 micron
100% min
0,4 mm max.

Adhesion, initial

FINAT FTM-1:
Glass
PMMA
Polycarbonate
ULTRALON IV

590 N/m
570 N/m
480 N/m
420 N/m

Adhesion, ultimate

FINAT FTM-1:
Glass
PMMA
Polycarbonate
ULTRALON IV

650 N/m
625 N/m
600 N/m
420 N/m

Flammability

Accelerated ageing

SAE J 1960, 1500h exposure

Self-extinguishing
No significant color change

Shelf life
Durability²

Stored at 22° C/50-55 % RH
Vertical exposure

2 years
5 years

Temperature range

Features

Application temperature
Service temperature

Results

Minimum: +10° C
-40° to +80° C

Chemical resistance

Resistant to most petroleum based oils, greases and aliphatic solvents.
Resistant to mild acids, alkalis and salts.

Important

Information on physical and chemical characteristics is based upon tests we believe to be reliable. The values listed herein are typical values and are not for use in specifications. 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 these Conditions, the English version shall be controlling.

Warranty

Avery Dennison® branded materials are manufactured under careful quality control and are warranted to be free from defect in material and workmanship. Any material shown to our satisfaction to be defective at the time of sale will be replaced without charge. Our aggregate liability to the purchaser shall in no circumstances exceed the cost of the defective materials supplied. No salesman, representative or agent is authorised to give any guarantee, warranty, or make any representation contrary to the foregoing. All Avery Dennison® branded materials are sold subject to the above conditions, being part of our standard conditions of sale, a copy of which is available on request.

1) Test methods

More information about our test methods can be found on our website: www.graphics.averydennison.eu

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.