

# Avery Dennison® DOL 2960 Gloss Gloss Clear Polymeric Calendered Overlamine

## Revision 2

### Introduction

Avery Dennison DOL 2960 is a flexible high quality UV stable gloss polymeric calendered overlamine, designed for use as a protective overlaminating film for digitally printed images, with improved UV digital silvering performance. It is suitable for medium life outdoor images on flat or simple curved surfaces.

### Common Applications

- Flat sided trucks
- Outdoor Advertising
- Indoor Advertising
- Windows
- Floor Graphics
- Corporate Signage

### Application surface

Flat, simple curves



#### Face Film

70 micron gloss clear UV stable polymeric calendered PVC



#### Backing

65 micron one side coated transparent PET film



#### Adhesive

Permanent acrylic



#### Outdoor life\*\*

Up to 5 years

### Features

- Uniform gloss finish with improved UV digitally silvering performance
- Dimensionally stable mottle reducing PET liner for easy converting
- Excellent UV protection & good abrasion resistance
- Provides finished printed graphic ICS Warranted performance of 3 years
- Excellent adhesion to printed and unprinted graphic materials
- Excellent transparency, with colour enhancement
- Attractive Brilliant Gloss finish
- Fire Group Number 1, certification# under the latest NCC specification C1.10 Fire Hazard Properties Standards
- AS/NZS 4586-2013 slip resistance classification of new pedestrian surfaces: Appendix A, B, Dual Classifications: (P1, D1)

### Conversion

- Flatbed cutters
- Friction fed cutters
- Die cutting
- Thermal transfer
- Screen printing
- Offset printing
- Cold overlaminating
- Electrostatic printing
- Latex inkjet
- Eco solvent inkjet
- Solvent inkjet
- UV curable inkjet

### Standards

- AS/NZS 4586-2013 slip resistance classification of new pedestrian surfaces: Appendix A, B, Dual Classifications: (P1, D1)

In order to interpret the classifications, please refer to Standards Australia Handbook

SA HB 198:2014 'Guide to the specification and testing of slip resistance of pedestrian surfaces' which recommends minimum classifications for a wide variety of locations.

- Fire Group Number 1, certification<sup>#</sup> under the latest NCC specification C1.10 Fire Hazard Properties, Clause 4: Wall and Ceiling Linings. Standards (AS 5637.1: 2015 - Determination of fire Hazard. Part 1: Wall and Ceiling Linings). All films with a Group Number 1 fire rating can be used in any internal walls/ceiling building areas..

### Application

For processing tips and reference guides please refer to Avery Dennison Instructional Bulletins:

- 1.18 Application and Maintenance of Avery Dennison® Floor Graphics
- 4.06 - Processing Tips for Laminating Films (DOL)

## General

Calliper, face film	ISO 534	70 micron
Calliper, face film & adhesive	ISO 534	135 micron
Gloss	ISO 2813, 20°	57%
Dimensional stability	FTM 14	0.4 mm max
Adhesion, 20 mins	FINAT FTM-1, Stainless steel	640 N/m
Adhesion, 24 hrs	FINAT FTM-1, Stainless steel	720 N/m
Flammability		Self extinguishing
Fire Standard Certification <sup>#</sup>	NCC specification C1.10 Fire Hazard Properties, Clause 4: Wall and Ceiling linings AS 5637.1: 2015 <sup>#</sup> Refer to <a href="#">Avery Dennison Fire Rating Overview document</a> Certification available upon request	Group Number 1
Slip Resistance	AS/NZS 4586:2013 Appendix A Appendix B Appendix AB Dual	Classification (P1) (D1) (P1, D1)
Shelf life	Stored at 22° C / 50-55% RH	2 years
Expected Durability <sup>**</sup>	Vertical exposure <sup>^</sup>	Up to 5 years

<sup>^</sup>See ICS Performance Guarantee Durability Bulletin for your specific printer and ink combination for further information

## Thermal

Application temperature	Minimum: + 10°C
Temperature range	-40°C to +80°C

## Chemical

Humidity resistance	120 hours exposure	No effect
Corrosion resistance	120 hours exposure	No contribution to corrosion
Water resistance	48 hour immersion	No effect
Chemical resistance	Mild acids Mild alkalis	No effect No effect
Solvent resistance	Applied to aluminium	No effect exposed to: Oils, greases, aliphatic solvents, motor oils, heptanes, kerosene, JP-4 fuel

### Important

Information on physical 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 any material for their specific use.

All technical data is subject to change without prior notice.

### Warranty

Avery Dennison® 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 guarantee, warranty, or make any representation contrary to the foregoing. All Avery Dennison® materials are sold subject to the above conditions, being part of our standard conditions of sale, a copy of which is available on request.

### \*\*Expected Durability

The expected durability of Avery Dennison films are defined as the expected performance life of the Avery Dennison graphic film(s) within Zone 1 of the Avery Dennison zone system, in outdoor vertical exposure conditions.

The actual performance life will depend on a variety of factors, including selection and preparation of substrate, angle and direction of exposure, application methods, environmental conditions and cleaning/maintenance of the films.

In case of films used in areas of high temperatures or humidity, high altitudes and industrially polluted areas the performance will be further reduced.

### Expected Durability and Warranted Period Definitions

Expected durability is the expected period of time defined in the product data sheet, the product should, but is not warranted to, perform satisfactorily when applied in vertical exposure conditions as defined in Instructional Bulletin 1.30. The warranted period as defined in the appropriate ICS Performance Guarantee Bulletin, is the maximum period of time Avery Dennison will warrant the finished products performance in accordance with ICS Performance Guarantee Terms and Conditions 1.0, provided that the film is properly stored, converted and installed in accordance with Avery Dennison guidelines.

## Testing Methods

### Dimensional stability:

Is measured on a 150 x 150 mm aluminium panel to which a specimen has been applied; 72 hours after application the panel is exposed for 48 hours to + 70°C, after which the shrinkage is measured.

### Adhesion:

(FTM-1, FINAT) is measured by peeling a specimen at a 180° angle from a stainless steel or float glass panel, 24 hours after the specimen has been applied under standardised conditions. Initial adhesion is measured 20 minutes after application of the specimen.

### Flammability:

A specimen applied to aluminium is subjected to the flame of a gas burner for 15 seconds. The film should stop burning within 15 seconds after removal from the flame.

### Temperature range:

A specimen applied to stainless steel is exposed at high and low temperatures and brought back to room temperature. 1 hour after exposure the specimen is examined for any deterioration. Note: Prolonged exposure to high and low temperatures in the presence of chemicals such as solvents, acids, dyes, etc. may eventually cause deterioration.

### Chemical Resistance:

All chemical tests are conducted with test panels to which a specimen has been applied. 72 hours after application the panels are immersed in the test fluid for the given test period. 1 hour after removing the panel from the fluid, the specimen is examined for any deterioration.

### Corrosion Resistance:

A specimen applied to aluminium is exposed to saline mist (5% salt) at 35°C. After exposure, the film is removed and the panel is examined for traces of corrosion.



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