

PRODUCT DATA SHEET

Avery Dennison® DOL 1400 Z Series

issued: 02/2017

Introduction

Avery Dennison DOL 1400 Z series cast overlaminates are premium quality, ultra-flexible films designed to be used as protective overlaminate films for digitally printed images. The films offer exceptional value for applications requiring enhanced colours and durability. Avery Dennison DOL 1400 Z series overlaminate films have specially been developed to be used for vehicle graphics. Due to the films' excellent durability and supreme conformability, these overlaminates are highly recommended for use with Avery Dennison MPI cast media for applications on rivets and corrugations and/or for prolonged outdoor use.

Description

Film	:	premium quality 30 micron clear cast vinyl DOL 1460 Z Gloss DOL 1480 Z Matt
Adhesive	:	permanent, acrylic based
Backing paper	:	white bleached kraft paper, 130 g/m ²

Conversion

- For processing tips and reference guides please refer to Technical Bulletins:
- 5.3 Recommended combinations of Avery Dennison overlaminates and Avery Dennison Digital Print Media.
 - 5.4 Processing tips for Avery Dennison DOL films.

Uses

Protective overlaminate film for digital printed images for indoor and outdoor use. Avery Dennison DOL 1400 series cast overlaminates can be used in combination with Avery Dennison MPI cast media for application on corrugated or riveted surfaces.

- Vehicle graphics and vehicle wrapping
- Interior & exterior signs
- Durable promotional and point of sale advertising
- All permanent applications requiring excellent conformability

Features

- Premium quality, ultra-flexible, cast vinyl
- DOL 1460 Z Gloss enhances image colours
- Smooth, low glare matt finish with DOL 1480 Z Matt
- Protects against UV radiation and abrasion
- Excellent conformability to irregular substrates in combination with MPI cast media

Note

The durability of a printed image always depends on the toner/ink, film, type of overlaminate, processing and exposure conditions. The film's surface can show alterations in matting due to contact pressure or other external influences. Please note that increased roller temperatures in combination with higher winding tension could lead to unwanted elongation of the film. Winding tension should therefore be carefully monitored and kept at an appropriate level.

Physical properties

Features	Test method ¹	Results
Caliper, facefilm	ISO 534	30 micron
Caliper, facefilm + adhesive	ISO 534	50 micron
Gloss		
DOL 1460 Z Gloss	ISO 2813, 20°	70%
DOL 1480 Z Matt	ISO 2813, 85°	20%
Dimensional stability	FINAT FTM 14	0.2 mm max.
Adhesion, initial	(ASTM 1000), stainless steel	400 N/m
Adhesion, ultimate	(ASTM 1000), stainless steel	500 N/m
Shelf life	Stored at 22° C/50-55 % RH	2 years
Durability	Vertical exposure	6 years

Temperature range

Features	Results
Application temperature:	See Technical Bulletin 5.29
Service temperature:	- 40 °C to + 80 °C

Chemical properties

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

Prolonged immersion in gasoline and similar fluids is not recommended.

NOTE: Materials have to be properly dried before further processing, for example laminating, varnishing or application. The residual solvents could change the products' specific features.

For good print and converting result we recommend to let the rolls acclimatize in the print/lamination room at least 24h. before printing or converting. Too much temperature or humidity deviation between material and room climate can cause layflatness and/or printability issues.

Generally, constant material storage conditions of ideally 20°C (+/-2°C) /50% RH (+/- 5%), without too big climate deviations, will support a more robust and stable printing/converting process. For further details, please refer to TB 1.11.

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

All Avery Dennison statements, technical information and recommendations are based on tests believed to be reliable but do not constitute a guarantee or warranty. All Avery Dennison products are sold with the understanding that purchaser has independently determined the suitability of such products for its purposes.

All Avery Dennison's products are sold subject to Avery Dennison's general terms and conditions of sale, see <http://terms.europe.averydennison.com>

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.