# **PRODUCT DATA SHEET**

# Avery Dennison<sup>®</sup> MPI<sup>™</sup> 1440 Ultra Clear

## Introduction

Avery Dennison Multi Purpose Inkjet 1440 Ultra Clear is an optically clear, highly glossy, 3D conformable film designed for premium graphics applications. It comes with a permanent adhesive to grant long term durability for a wide range of applications, from window decoration to car wrapping.

## Description

Film :40 micron gloss transparent cast polyurethane

Adhesive : Permanent, clear, acrylic based

Backing paper : Clear PET, 72 g/m2

## Conversion

MPI 1440 Ultra Clear is a multi-purpose vinyl, suitable for a variety of wide format inkjet printers using hard solvent, eco/mild solvent, UV-curing or latex inks.

To enhance colour and to protect images against UV radiation and abrasion, it is recommended to protect Avery Dennison MPI 1440 Ultra Clear with itself.

Avery Dennison recommends special care for MPI 1440 Ultra Clear and provides the "Technical Bulletin 5.14" with printing and application suggestions.

ICC profiles are available on the Avery Dennison collaboration site.

## Uses

- Architectural interior & exterior window decoration
- Glass decoration
- Partial or full car wrapping
- Long term applications

#### **Features**

- PVC free
- 3D conformable
- Ultra clear for no substrate look
- Self-laminating: use MPI 1440 also as a lamination to keep only one product in stock
- ICS Performance Guarantee for horizontal applications
- Excellent printing results through main Digital platforms: eco/mild solvent, Latex and UV
- Extreme gloss finish



- 40 °C to + 80 °C

## **Physical properties**

| Features   | <b>Test method</b> <sup>1</sup>              | Results                   |
|--|--|---------------------------|
| Caliper, facefilm  | ISO 534                                      | 40 micron                 |
| Caliper, facefilm + adhesive   | ISO 534                                      | 60 micron                 |
| Dimensional stability  | FINAT FTM 14                                 | 0.2mm max                 |
| Note: Ink loads in excess of 250%  | may cause increased shrinkage of the printer | d film                    |
| Adhesion, initial  | FINAT FTM-1, stainless steel                 | 440 N/m                   |
| Adhesion, ultimate   | FINAT FTM-1, stainless steel                 | 600 N/m                   |
| Flammability   | EN 13501-1                                   | B-S1, d0                  |
| Shelf life   | Stored at 22° C/50-55 % RH                   | 2 years                   |
| Durability, unprinted  | Vertical exposure                            | up to 12 years            |
| <b>Temperature range</b><br>Features<br>Minimum application temperature: |  | <b>Results</b><br>+ 10 °C |

Minimum application temperature: Service temperature:

**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

Avery Dennison<sup>®</sup> 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<sup>®</sup> 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.

#### 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.