

# Avery Dennison<sup>®</sup> Instructional Bulletin 1.30 EU

## Durability of Avery Dennison Graphics Films

### Introduction

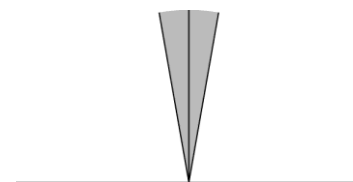
The durability of Avery Dennison Graphics films are defined as the expected performance life of the Avery Dennison Graphics films within the European region in outdoor vertical exposure conditions. The durability is defined such that the films will not deteriorate excessively, i.e. the finished graphic remains effective for its advertising or identification purpose when viewed under normal conditions from the intended viewing distance. Specific durability expectations are available in the appropriate Product Data Sheet and/or ICS Performance Guarantee Durability Bulletins.

### Reduction of Durability Expectations

The actual performance life will depend on a variety of factors, including selection and preparation of the substrate, angle and direction of exposure, application methods, environmental conditions and cleaning and maintenance of the films. In case of films used in areas of high temperatures or humidity, high altitudes, in industrially polluted areas or other areas with air laden particulate matter, the durability will be further reduced below the level stated in the appropriate Product Data Sheets, Instructional Bulletins and/or ICS Performance Guarantee Bulletins.

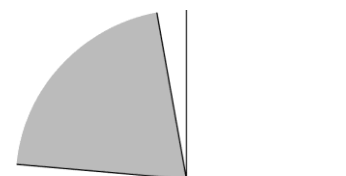
### Vertical Exposure

The face of the graphic is  $\pm 10^\circ$  from vertical. Vertical durability is as stated in appropriate Product Data Sheets, Technical Bulletins and/or ICS Performance Guarantee Durability Bulletins.



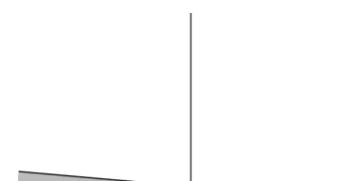
### Non-Vertical Exposure

The face of the finished graphic is  $10^\circ$  to  $85^\circ$  from vertical.



### Horizontal Exposure

The face of the finished graphic is  $85^\circ$  to  $90^\circ$  from vertical. The reduction of durability for horizontal applications would be 50% less than the stated durability in appropriate Product Data Sheets, Technical Bulletins and/or ICS Performance Guarantee Durability Bulletins.



## Special Locations

High Elevations – In mountain areas UV damage is increased over exposures at sea level. This is due to the air being thinner, and therefore damage from UV radiation increases significantly.

Congested Urban or Industrial Areas – Due to increased smog, pollutants, and particulates in the atmosphere in congested urban and industrial areas horizontal applications have reduced durability expectations. The horizontal application traps the chemicals on the surface of the material, increasing the impact of UV exposure and reducing durability.

## Zone System Europe

Based on the Zone System below, durability in regions located in Zone 1 will perform in vertical applications as stated in the Product Data Sheet and ICS Performance Guarantee Durability Bulletins.

Films used in regions identified in Zone 2 will have a reduction of two years. Films used in regions identified in Zone 3 will have a reduction of the stated durability of Zone 2 by an additional two years. Where the vertical Zone 2 durability is less than three years the Zone 3 durability is 50% of Zone 2.

The durability of horizontal applications in all zones is 50% of the vertical durability for the following products:

- Avery Dennison Facade Film
- Avery Dennison Supreme Wrapping Films (SWF)
- Avery Dennison White and Black films from the signage portfolio.
- All Avery Dennison White and Transparent digitally printable films.

All other products have a guarantee on vertical durability only.

## Horizontal exposure and Zone Reductions

Zone 1		Zone 2		Zone 3	
Vertical	Non-Vertical, Horizontal	Vertical	Non-Vertical, Horizontal	Vertical	Non-Vertical, Horizontal
12	6	10	5	8	4
11	5.5	9	4.5	7	3.5
10	5	8	4	6	3
9	4.5	7	3.5	5	2.5
8	4	6	3	4	2
7	3.5	5	2.5	3	1.5
6	3	4	2	2	1
5	2.5	3	1.5	1.5	0.75
4	2	2	1	1	0.5
3	1.5	1	0.5	0.5	0.25
2	1	-	-	-	-
1	0.5	-	-	-	-

Durability in years.

## Zone System Chart

See country/area zone classification below.

Zone 1	Zone 2	Zone 3	
Andorra Austria Belarus Belgium Bosnia & Herzegovina Bulgaria Croatia Czech Republic Denmark Ecuador Estonia Finland France (excluding Corsica and Réunion) Georgia Germany Hungary Iceland Ireland Italy (North and Central) Kosovo Latvia Liechtenstein Lithuania Luxembourg Macedonia F.Y.R. Moldova Monaco Montenegro Netherlands, the Norway Poland Romania Russia San Marino Serbia Slovakia Slovenia Sweden Switzerland Ukraine United Kingdom United States of America* Vatican City  <i>*Except desert areas of the States mentioned in Zone 2</i>	Albania Armenia Australia* Azerbaijan Bahamas Bangladesh Barbados Belize Benin Bhutan Bolivia Brazil Burkina Faso Burundi Cambodia Cameroon Cape Verde Caribbean Isles Chile China Colombia Costa Rica Cote d'Ivoire Dominica Dominican Republic East Timor El Salvador Fiji Corsica Greece Grenada Guatemala Guyana Haiti Honduras Indonesia Italy (South of Rome) Jamaica Japan Kazakhstan Korea (South) Kyrgyzstan Laos Lesotho Madagascar Malawi Malaysia Maldives Malta Mauritius	Micronesia Myanmar (Birma) Nepal New Zealand Nicaragua Panama Papua New Guinea Paraguay Peru Philippines Portugal Puerto Rico Réunion Rwanda Samoa San Marino Sao Tome & Principe Singapore Spain (excl. Canary Islands) Sri Lanka Suriname Swaziland Taiwan Tajikistan Thailand Togo Trinidad & Tobago Turkey Turkmenistan Uruguay Uzbekistan Venezuela Vietnam  <i>Arizona</i> <i>California</i> <i>Florida (Southern)</i> <i>Nevada</i> <i>New Mexico</i> <i>Texas</i> <i>Utah</i>  * Exceptions classified in Zone 3	All sites (mentioned in zones 1, 2 and 3) above altitudes of 1000 meters.  Afghanistan Algeria Angola <i>Australia – Above a line 100km north of Perth/Brisbane</i> <i>Australia – Desert areas</i> Bahrain Botswana Canary Islands Central African Rep. Chad Congo Cyprus Egypt Equatorial Guinea Eritrea Ethiopia Gabon Gambia Ghana Guinée Guinée-Bissau India Iraq Israel Jordan Kenya Kuwait Lebanon Liberia Libya Mali Mauritania Mexico Mozambique Morocco Namibia Niger Nigeria  Oman Pakistan Qatar Saudi Arabia Senegal Sierra Leone Somalia South Africa Tanzania Tunisia Uganda United Arab Emirates Yemen Zambia Zimbabwe

This document replaces all former statements on durability regarding exposure- and zone reduction of products by Avery Dennison Graphics Solutions Europe, including Supreme Cover documents and Technical Bulletins.

ICS Project Warranty documents can contain individual agreements which may vary from I.B 30, Technical Bulletins or datasheets.

Please check the ICS Warranty "Terms & Conditions" documents for any additional information

Questions regarding the durability of a specific product should be directed to your Avery Dennison sales, marketing, technical representative or the Avery Dennison Graphics website