

Avery Dennison® Instructional Bulletin 1.30 EU

Durability of Avery Dennison Graphics Films

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Introduction

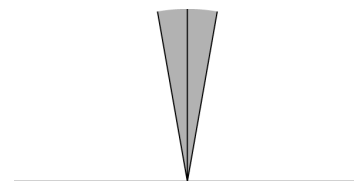
The durability of Avery Dennison Graphics films are defined as the expected performance life of the Avery Dennison Graphics films within the European region in outdoor vertical exposure conditions. The durability is defined such that the films will not deteriorate excessively, i.e. the finished graphic 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.

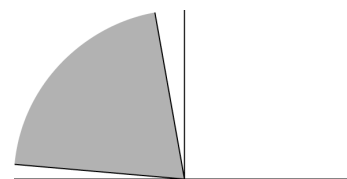
Vertical Exposure

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.



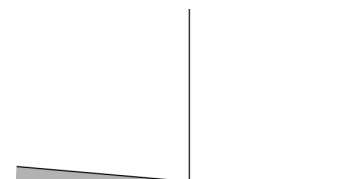
Non-Vertical Exposure

The face of the finished graphic is 10° to 85° from vertical.



Horizontal Exposure

The face of the finished graphic is 85° to 90° 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 Signage films (opaque, transparent/translucent, specialty, and reflective)
- Avery Dennison Supreme Wrapping Films (SWF)
- 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	Albania	All sites (mentioned in zones 1, 2 and 3) above altitudes of 1000 meters.
Austria	Armenia	Afghanistan
Belarus	Australia*	Algeria
Belgium	Azerbaijan	Angola
Bosnia & Herzegovina	Bahamas	<i>Australia – Above a line 100km north of Perth/Brisbane</i>
Bulgaria	Bangladesh	<i>Australia – Desert areas</i>
Croatia	Barbados	Bahrain
Czech Republic	Belize	Botswana
Denmark	Benin	Canary Islands
Ecuador	Bhutan	Central African Rep.
Estonia	Bolivia	Chad
Finland	Brazil	Congo
France (excluding Corsica and Réunion)	Burkina Faso	Cyprus
Georgia	Burundi	Egypt
Germany	Cambodia	Equatorial Guinea
Hungary	Cameroon	Eritrea
Iceland	Cape Verde	Ethiopia
Ireland	Caribbean Isles	Gabon
Italy (North and Central)	Chile	Gambia
Kosovo	China	Ghana
Latvia	Colombia	Guinée
Liechtenstein	Costa Rica	Guinée-Bissau
Lithuania	Cote d'Ivoire	India
Luxembourg	Dominica	Iraq
Macedonia F.Y.R.	Dominican Republic	Israel
Moldova	East Timor	Jordan
Monaco	El Salvador	Kenya
Montenegro	Fiji	Kuwait
Netherlands, the	Corsica	Lebanon
Norway	Greece	Liberia
Poland	Grenada	Libya
Romania	Guatemala	Mali
Russia	Guyana	Mauritania
San Marino	Haïti	Mexico
Serbia	Honduras	Mozambique
Slovakia	Indonesia	Morocco
Slovenia	Italy (South of Rome)	Namibia
Sweden	Jamaica	Niger
Switzerland	Japan	Nigeria
Ukraine	Kazakhstan	
United Kingdom	Korea (South)	
United States of America	Kyrgyzstan	
	Laos	
	Lesotho	
	Madagascar	
	Malawi	
	Malaysia	
	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>	

Vatican City <i>*Except desert areas of the States mentioned in Zone 2</i>	Malta Mauritius	* Exceptions classified in Zone 3
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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