

Avery[®] Instructional Bulletin 1.30 EU

Durability of Avery Graphics Films

Introduction

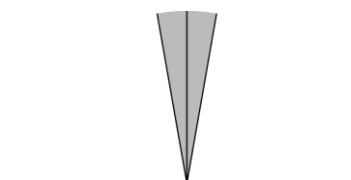
The durability of Avery Dennison Graphics and Reflective Solutions (Avery Graphics) films are defined as the expected performance life of the Avery Graphics film(s) within the European region in outdoor vertical exposure conditions. The durability is defined such that the films will not deteriorate excessively, 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.

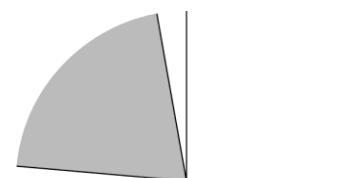
Vertical Exposure

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.



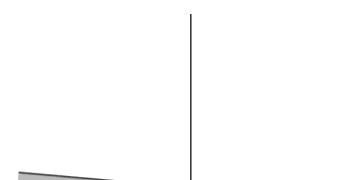
Non-Vertical Exposure

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 Supreme Wrapping Films (SWF)
- Avery White and Black films from the signage portfolio.
- All Avery 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
Albania	Afghanistan	Kazakhstan	Trinidad & Tobago	Exposed at all sites above altitudes of 1000 meters
Andorra	Angola	Kenya	Turkey	
Austria	Armenia	Korea (South)	Turkmenistan	
Belarus	Australia*	Kyrgyzstan	Uganda	
Belgium	Azerbaijan	Laos	Uruguay	
Bosnia & Herzegovina	Bahamas	Lesotho	Uzbekistan	
Bulgaria	Bangladesh	Liberia	Venezuela	
Croatia	Barbados	Madagascar	Vietnam	
Czech Republic	Belize	Malawi	Zambia	
Denmark	Benin	Malaysia	Zimbabwe	
Ecuador	Bhutan	Maldives		
Estonia	Bolivia	Mali	Arizona	
Finland	Botswana	Malta	California	
France	Brazil	Mauritania	Florida (Southern)	
Georgia	Burkina Faso	Mauritius	Nevada	
Germany	Burundi	Micronesia	New Mexico	
Hungary	Cambodia	Mozambique	Texas	
Iceland	Cameroon	Myanmar (Birma)	Utah	
Ireland	Cape Verde	Namibia		
Italy	Caribbean Isles	Nepal		
Kosovo	Central African Rep.	New Zealand		
Latvia	Chile	Nicaragua		
Liechtenstein	China	Niger		
Lithuania	Colombia	Nigeria		
Luxembourg	Congo	Pakistan		
Macedonia F.Y.R.	Costa Rica	Panama		
Moldova	Cote d'Ivoire	Papua New Guinea		
Monaco	Cyprus	Paraguay		
Montenegro	Dominica	Peru		
Netherlands, the	Dominican Republic	Philippines		
Norway	East Timor	Portugal		
Poland	El Salvador	Puerto Rico		
Romania	Equatorial Guinea	Rwanda		
Russia	Fiji	Samoa		
San Marino	Gabon	San Marino		
Serbia	Gambia	Sao Tome & Principe		
Slovakia	Ghana	Senegal		
Slovenia	Greece	Sierra Leone		
Sweden	Grenada	Singapore		
Switzerland	Guatemala	South Africa		
Ukraine	Guinée	Spain		
United Kingdom	Guinée-Bissau	Sri Lanka		
United States of America*	Guyana	Suriname		
Vatican City	Haïti	Swaziland		
	Honduras	Taiwan		
	India	Tajikistan		
	Indonesia	Tanzania		
	Jamaica	Thailand		
	Japan	Togo		
			* Exceptions classified in Zone 3	

This document replaces all former statements on durability regarding exposure- and zone reduction of products by Avery Dennison GRPD 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 Graphics website