Avery Dennison
Graphics Solutions
Instructional Bulletin

Asia Pacific
October 2022

Avery Dennison® Instructional Bulletin 1.3

Durability of Avery Dennison Films

Revision 3

Introduction

This instructional bulletin describes the conditions and circumstances that would affect the durability of Avery Dennison Films. The expected durability of Avery Dennison films are defined as the expected performance life of the Avery Dennison graphic film(s) within Zone 1 in outdoor vertical exposure conditions. The durability communicated via Avery Dennison product data sheets is not defined as the period of time the film is warranted for, warranted periods for Avery Dennison films can be found in the corresponding ICS Performance Guarantee Bulletin.

Expected Durability and Warranted Period Definitions

Expected durability is the expected period of time defined in the product data sheet, the product should, but is not warranted to, perform satisfactorily when applied in vertical exposure conditions as defined in Instructional Bulletin 1.30. The warranted period communicated via the ICS Performance Guarantee Bulletins, is the maximum period of time Avery Dennison will warrant the finished products performance in accordance with ICS Performance Guarantee Terms and Conditions 1.0, provided that the film is properly stored, converted and installed in accordance with Avery Dennison guidelines.

Durability Reductions

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, in industrially polluted areas or other areas with air laden particulate matter, and/or in high altitudes, durability will be reduced from that stated in the appropriate Product Data Sheet, Instructional Bulletin and ICS Performance Guarantee Bulletin.

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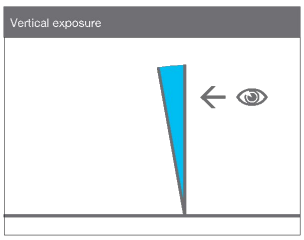
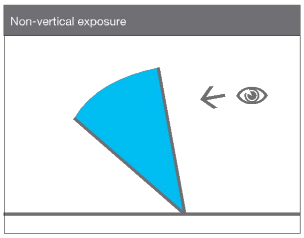
Vertical Exposure

The face of the graphic is ±10° from vertical. Vertical durability is as stated in appropriate Product Data Sheets, Instructional Bulletins and ICS Performance Guarantee Durability Bulletins.



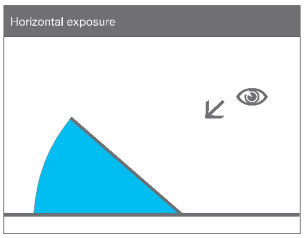
Non-Vertical Exposure

The face of the finished graphic is greater than 10° from vertical and greater than 45° from horizontal. The reduction of durability for non-vertical applications would be 50% less than the stated durability in the appropriate Product Data Sheet, Instructional Bulletin and ICS Performance Guarantee Bulletin.



Horizontal Exposure

The face of the finished graphic is 45° to 90° from vertical. Horizontal applications are not warranted and do not have any expectations of durability. The exposure of films in the horizontal position invalidates any performance expectations as stated in the appropriate Product Data Sheet, Instructional Bulletin and ICS Performance Guarantee Bulletin, unless otherwise stated. Films may retain legibility, but will not provide published Expected Durability for gloss, colour retention, chalking, dimensional stability and overall aesthetic performance.



Zone System, Asia Pacific

Durability for regions located in Zone 2 may be stated in ICS Performance Guarantee Durability Bulletins and other warranty documents issued by Avery Dennison Asia Pacific. Therefore, films used in regions identified as Zone 3 will have a reduction of the stated durability by 40%. If the film were applied whereby a combination of non-vertical and Zone 3 exposure, the cumulative effect of the reduced exposures would apply. Therefore the non-vertical exposure in Zone 3 would be 70% less than the stated durability.

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Zone and Non-Vertical Reduction Examples

Zone 1		Zone 2 (values as in this ICS Bulletin)		Zone 3	
Vertical	Non-vertical	Vertical	Non-vertical	Vertical	Non-vertical
100%	-50% of Zone 1 Vertical	-30% Zone 1 Vertical	-50% Zone 2 Vertical	-40% Zone 2 Vertical	-70% of Zone 2 Vertical
7	3.5	5	2.5	3	1.5
5	2.5	3.5	1.75	2	1
4	2	3	1.5	1.75	0.75
3	1.5	2	1	1	-

Values in years

Zone Chart Australia and New Zealand

Zone 1

Tasmania.

Zone 2

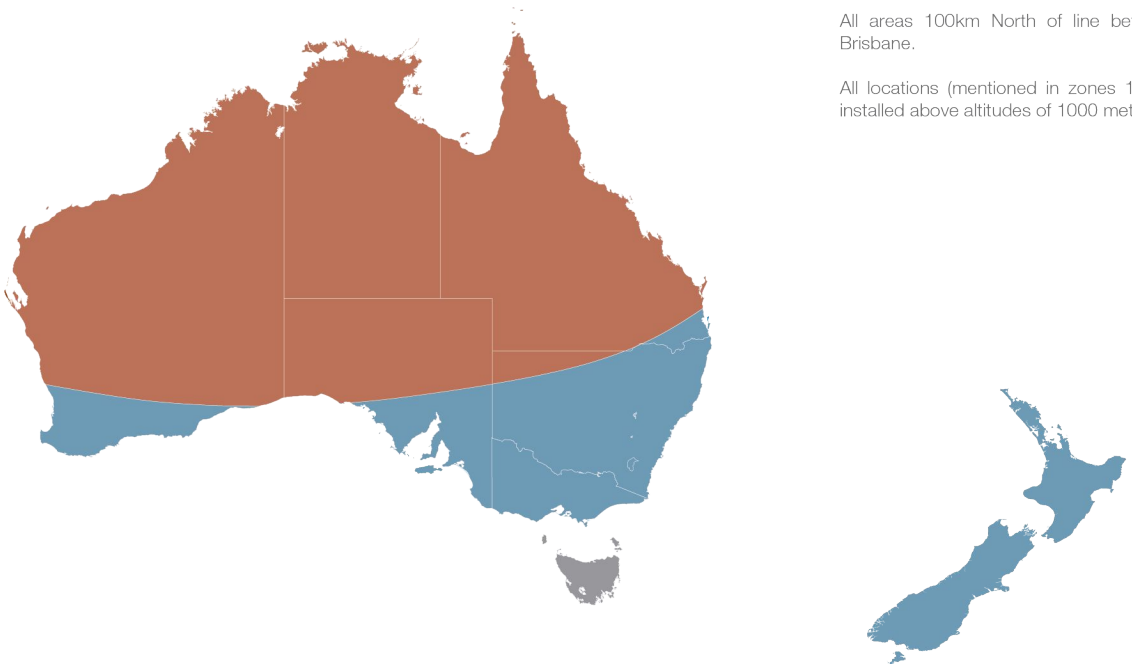
Adelaide, Albany, Brisbane, Canberra, Coffs Harbour, Esperance, Melbourne, New Zealand, Perth, Sydney.

Zone 3

Alice Springs, Broken Hill, Broome, Cairns, Carnarvon, Ceduna, Cook, Darwin, Dubbo, Geraldton, Kalgoorlie, Mackay, Mount Isa, Newman, Port Augusta, Port Hedland, Telfer, Townsville.

All areas 100km North of line between Perth and Brisbane.

All locations (mentioned in zones 1, 2 and 3) when installed above altitudes of 1000 meters.



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Zone and Non-Vertical Reduction Examples

Zone 1	Zone 2	Zone 3	
Austria	Afghanistan	Laos	Angola
Australia (Tasmania)	Albania	Lesotho	Bahrain
Belarus	Algeria	Madagascar	Botswana
Belgium	Andorra	Malaysia	Central African Rep.
Bosnia & Herzegovia	Arizona	Maldives	Chad
Canada	Armenia	Malta	Congo
Denmark	**Australia***	Mauritania	Egypt
Ecuador	Azerbaijan	Mauritius	Equatorial Guinea
Estonia	Bahamas	Micronesia	Eritrea
Finland	Bangladesh	Moldova	Ethiopia
France*	Barbados	Myanmar (Birma)	Gabon
Georgia	Belize	Nepal	Gambia
Germany	Bhutan	Nevada	Ghana
Hungary	Bolivia	New Zealand	Guinea-Bissau
Iceland	Brazil	Nicaragua	Iraq
Italy	Burkina Faso	Pakistan	Israel
Latvia	Burundi	Panama	Jordan
Liechtenstein	California	Papua New Guinea	Kenya
Lithuania	Cambodia	Paraguay	Kuwait
Luxembourg	Cameroon	Peru	Lebanon
Macedonia	Cape Verde	Philippines	Liberia
Monaco	Caribbean Isles	Portugal	Libya
Netherlands, the	Chile	Puerto Rico	Mali
Norway	China	Rwanda	Mexico
Poland	Colombia	Samoa	Morocco
Romania	Costa Rica	San Marino	Mozambique
Russia	Cyprus	Sao Tome & Principe	Namibia
Slovakia	Dominica	Singapore	New Mexico
Slovenia	Dominican Republic	South Africa (East)	Niger
Sweden	East Timor	Spain	Nigeria
Switzerland	El Salvador	Sri Lanka	Oman
United Kingdom	Fiji	Suriname	Qatar
United States of America*	Greece	Swaziland	Saudi Arabia
Ukraine	Grenada	Taiwan	Senegal
Uzbekistan	Guatemala	Texas	Sierra Leone
Vatican City	Guinea	Thailand	Somalia
Yugoslavia	Guyana	Togo	Tanzania
	Haiti	Trinidad & Tobago	Tunisia
*except areas noted as Zone 2 or Zone 3	Honduras	Turkey	
	India	Turkmenistan	
	Indonesia	Ukraine	
	Ivory Coast	Uruguay	
	Jamaica	Utah	
	Japan	Venezuela	
	Kazakhstan	Vietnam	
	Korea (South)		
	Kyrgyzstan	*Exceptions noted as Zone 3	

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Additional Information

High Elevations - Mountain area UV damage is increased over exposures at sea level. This is due to the air being thinner, and therefore damage from UV filtering 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, and increased UV exposure combine for reduced durability.

Marine Environments – Material installed in marine environments will have a reduced durability, consult Avery Dennison ICS Performance Guarantee Bulletins for further details.

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

*For further information on performance and warranted periods within the Asia Pacific region, please see the corresponding ICS Performance Guarantee Bulletin for your specific printer and ink combination or film type.

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Warranty and Limited Remedy

This instructional bulletin describes a technique. The information contained herein is believed to be reliable, but Avery Dennison makes no warranties, express or implied, including but not limited to any implied warranty of merchantability or fitness for a particular purpose. To the extent allowed by law, Avery Dennison shall not be liable for any loss or damages, whether direct, indirect, special, incidental or consequential, in any way related to the technique of making a graphic regardless of the legal theory asserted.

The above information provides basic information on how to apply pressure-sensitive graphics. The instructions are designed to help ensure success across a broad range of applications. Depending on the size and complexity of applications, a certain amount of expertise is needed.

Professional applicators can be hired to ensure proper application of finished graphics. When mounting graphics in remote geographic areas, professional applicators can offer the added benefit of local service.

Avery Dennison has a vast network of Certified Installers who have been specially trained and certified in accordance with our recommended techniques.

You can review the Certified Installer list here: Find a Graphics Installer

Consider hiring a professional whenever the application requires:

- Multiple panels to be registered
- Complex surfaces, such as rivet and corrugated trucks
- Harsh environmental conditions (i.e. outdoor applications in high heat climates)
- Remote geographic locations

For further information, contact your local Avery Dennison representative.