

Avery Dennison® WR-7100
Prismatic Grade Reflective Sheeting
Pressure Sensitive Adhesive for
Reboundable Channelizer Devices

Data Bulletin # WR-7100

10/2004a

Description:

Avery Dennison® WR-7100 Prismatic Grade Reflective Sheeting for reboundable channelizer devices is a durable, high-quality, micro-prismatic retroreflective material. This product is intended for use on polyethylene products such as drums, posts, and tubes. WR-7100 meets the retroreflectivity requirements of Type IV sheeting, and conforms to Class 1 adhesive requirements, as set forth in ASTM D 4956.

Construction:

Face Film:	High Gloss Reflective Film
Adhesive	Permanent Pressure Sensitive (Class 1)
Liner:	White Poly Film

Photometric Performance:

Minimum Coefficient of Retroreflection (R_A) (cd / lx / m²)

Observation Angle	Entrance Angle	White	Fluorescent Orange
0.1°	-4°	500	150
	30°	240	70
0.2°	-4°	360	105
	30°	170	50
0.5°	-4°	150	45
	30°	72	22

Colors & Specification Limits (Daytime):*

WR-7114 Prismatic Grade Reflective Sheeting will meet the color specifications below when tested as noted.

Color	1		2		3		4	
	x	y	x	y	x	y	x	y
White	0.303	0.300	0.368	0.366	0.340	0.393	0.274	0.329
Fluorescent Orange	0.583	0.416	0.535	0.400	0.595	0.351	0.645	0.355

The four pairs of chromaticity coordinates determine the acceptable color in terms of the CIE 1931 Standard Colorimetric System measured with Standard Illuminant D65.

Avery Dennison® WR-7100 continued...

Daytime Luminance:*

Color	Luminance (Y%)	
	Min	Max
White	40	---
Fluorescent Orange	25	---

The color and fluorescence must be tested with equipment having proper geometry. For approved test methods and equipment, please contact Avery Dennison, Reflective Films Division, Optics Department.

Note: WR-7114 Prismatic Grade Reflective Sheeting will also meet the color and fluorescence requirements in the proposed FHWA Color Specifications of December 1999. (23CFR pt655- Dec. 21, 1999) using the test equipment and procedure designated therein.

Other Specifications:

Consult your Avery Dennison Representative for information concerning additional worldwide specifications.

Physical Properties:

Outdoor Durability	Avery Dennison® WR-7100 sheeting has a 3 year durability when properly applied.
Minimum Surface & Ambient Air Application Temperature	60°F (18°C)
Application Surface	Recommended for HDPE & LDPE reboundable plastic drums surfaces. Smooth, dry and flame treated surfaces will allow for the best permanent bond. Always apply with a squeegee, and pretest your specific substrate prior to actual application. Use of wet method of application is not recommended for WR-7100 reflective sheeting.
Service Temperature Range	-10°F to 140°F (-23°C to 60°C)
Typical Film Caliper (w/adhesive)	17.0 ± 0.5 mils (431 ±13µm)
Shelf Life	One year when stored at the following temperature and conditions 68°F - 77°F (20°C - 25°C) and 50% ± 5% R.H
Other Tests:	WR-7100 meets all other requirements set forth in ASTM D 4956 including Shrinkage, Flexibility, Liner removal, Adhesion, Impact resistance, Specular gloss and Outdoor weathering.

Orientation:

Avery Dennison® WR-7100 Prismatic sheeting does not require a special orientation for mounting and thus does not require an orientation arrow datum mark.

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Application & Conversion Information:

The following Avery Dennison literature will provide complete information to the user for proper application, storage, and other requirements and is available from your Avery Dennison representative, from the Avery Dennison web-site www.reflectives.averydennison.com, or on request:

Instructional Bulletins:	
Sheeting Care & Handling	#8.00
Substrate Requirements	#8.01
Application of Reboundable Film	#8.03
Application Techniques for PS Sheeting	#8.10

Color Availability:	
WR-7100	White
WR-7114	Fluorescent Orange

Warranty:

WARRANTY: All statements, technical information and recommendations about Avery Dennison products are based upon tests believed to be reliable but do not constitute a guarantee or warranty. All Avery Dennison products are sold with the understanding that Purchaser has independently determined the suitability of such products for its purposes. Avery Dennison products are warranted to be free from defects in material and workmanship for either one year (or the period stated on the specific product information literature in effect at time of delivery, if longer) from date of shipment if said product is properly stored and applied. It is expressly agreed and understood that Avery Dennison's sole obligation and Purchaser's exclusive remedy under this warranty, under any other warranty, express or implied, or otherwise, shall be limited to repair or replacement of defective product without charge at Avery Dennison's plant or at the location of product (at Avery Dennison's election), or in the event replacement or repairs is not commercially practical, to Avery Dennison's issuing Purchaser a credit reasonable in light of the defect in the product.

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WR-7100 is protected by one or more of the following US Patents: 4,460,449; 4,633,567; 5,156,863; 4,486,363; 4,601,861; 5,213,872; 5,310,436; 5,854,709; 6,602,373; 5,930,041; other patents pending