

# AURA<sup>®</sup> 173 Prismatic Super Engineer Grade Sheeting

Product Code: 0173

Product Data Bulletin

## Product Overview

Aura Optical Systems' AURA<sup>®</sup> 173 Prismatic Super Engineer Grade Sheeting is a microprismatic retroreflective sheeting with up to 7-years durability for traffic signing and similar applications. Meets the color and reflectivity requirements of ASTM D-4956 Type II. Due to the higher reflectivity levels compared to engineer grade sheeting, AURA<sup>®</sup> 173 is an excellent option for many traffic signs to ensure compliance with the FHWA minimum reflectivity requirements in the United States.

## Key Features

- Metalized, single-ply construction to prevent edge-lifting and eliminate water ingress on cut letters or numbers.
- Microprismatic optical elements aligned in multiple directions for a more uniform reflective appearance across different rotations.

## Physical Characteristics & Properties

Durability	Up to 7-years when properly installed. Vertical exposure only.
Retroreflective Elements	Microprisms, metalized with vacuum-deposited aluminum
Product Thickness	10 mils, excluding release liner
Release Liner	Poly Release Liner
Adhesive	Permanent acrylic-based pressure sensitive adhesive <sup>†</sup>
Application Temperature	15°C (60°F) minimum

<sup>†</sup> Suitability of the product for a specific sign substrate should always be tested prior to sign fabrication. Aura Optical Systems offers a variety of testing services to assist with such testing.

## Color Availability

Product Code	Color
0173-00	White
0173-01	Yellow
0173-02	Red
0173-04	Orange
0173-05	Blue
0173-07	Green
0173-09	Brown

## Retroreflection

Minimum Coefficient of Retroreflection when Measured per ASTM E-810. Average of 0° and 90° Rotations. (cd/lx/m<sup>2</sup>)

Color	Observation Angle	Entrance Angle	
		-4°	30°
White	0.2°	140	60
	0.5°	50	28
Yellow	0.2°	100	36
	0.5°	33	20
Red	0.2°	30	12
	0.5°	10	6
Orange	0.2°	60	22
	0.5°	20	12
Blue	0.2°	10	4
	0.5°	3	2
Green	0.2°	30	10
	0.5°	9	6
Brown	0.2°	5	2
	0.5°	2	1



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## Daytime Color

The daytime color of AURA<sup>®</sup> 173 sheeting will fall within the color boundaries identified below by four pairs of chromaticity coordinates (CIE 1931 Standard Colorimetric System) when measured with Standard Illuminant D65 using a 0/45 (45/0) geometry instrument.

Color Boundaries:

Color	1		2		3		4		Cap Y%	
	x	Y	x	y	x	y	x	y	Min	Max
White	.303	.300	.368	.366	.340	.393	.274	.329	27	--
Yellow	.498	.412	.557	.442	.479	.520	.438	.472	16	45
Red	.648	.351	.735	.265	.629	.281	.565	.346	3.0	12
Orange	.558	.352	.636	.364	.570	.429	.506	.404	10	30
Blue	.140	.035	.244	.210	.190	.255	.065	.216	1.0	10
Green	.026	.399	.166	.364	.286	.446	.207	.771	3.0	9.0
Brown	.430	.340	.610	.390	.550	.450	.430	.390	1.0	9.0

## Application Guidelines

AURA<sup>®</sup> 173 should be conditioned above 15°C (60°F) for at least 24-hours prior to application. Application should occur using a squeeze roll applicator or by hand using a firm rubber roller or plastic squeegee. Substrates should be cleaned prior to application. Wipe surfaces with rubbing alcohol (or similar solvent cleaner) and allow the surface to completely dry prior to application. Wet application method is NOT recommended.

## Storage


Store in a cool, dry area. Use within 1-year of receipt of the product.

## Warranty Information

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