

# AURA<sup>®</sup> 172 Prismatic Engineer Grade Sheeting

Product Code: 0172

Product Data Bulletin

## Product Overview

Aura Optical Systems' AURA<sup>®</sup> 172 Prismatic Engineer Grade Sheeting is a microprismatic retroreflective sheeting with up to 7-years durability for commercial signing, construction work zone signing, traffic signing, and similar applications. AURA<sup>®</sup> 172 has a cellular product construction and contains a proprietary top-coat for exceptional digital printing. Meets the color and reflectivity requirements of ASTM D-4956 Type 1, EN 12899-1 Class 1, and other industry specifications.

## Key Features

- Exceptional digital printing across a broad range of printing technologies, including eco-solvent and latex printing.
- Microprismatic optical elements aligned in multiple directions for a more uniform reflective appearance across different rotations.
- Vibrant daytime appearance

## Physical Characteristics & Properties

Durability	Up to 7-years when properly installed. Vertical exposure only. (Note: 3-years for construction work zone colors)
Retroreflective Elements	Microprisms
Product Thickness	16 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.

## Color Availability

Product Code	Color
0172-00	White
0172-01	Yellow
0172-02	Red
0172-04	Orange
0172-05	Blue
0172-07	Green

## Typical Retroreflection

Typical 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°	160	80
	0.5°	80	40
Yellow	0.2°	110	55
	0.5°	55	26
Red	0.2°	35	17
	0.5°	17	9
Orange	0.2°	65	30
	0.5°	30	15
Blue	0.2°	10	5
	0.5°	5	2.5
Green	0.2°	20	10
	0.5°	10	5



**Aura Optical Systems, L.P.**

7415 Whitehall, Suite 111

Ft. Worth, Texas 76118 U.S.A.

General / International Inquiries: +1 (801) 668-3439

USA Sales Inquiries: +1 (682) 227-1208

www.auraopticalsystems.com

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## Daytime Color

The daytime color of AURA® 172 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	2.5	15
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	12

## Application Guidelines

The following is a short overview of application guidelines. Please refer to the various Technical Data Bulletins supplied by Aura Optical Systems for a complete set of procedures.

AURA® 172 should be conditioned above 18°C (65°F) for at least 24-hours prior to application. Application should occur using a squeeze roll applicator with a firm rubber roller. Hand application is not recommended.

AURA® 172 is designed primarily for application to flat surfaces. Sign 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.

After lamination, finished signs should be stored indoors at ambient temperatures for at least 24 hours prior to installation or exposure to outdoor environments. Store finished signs on edge in an upright position. Do not stack in outdoor environments or allow sign packages to become saturated with water. Store sign packages indoors in an upright position.

## Storage


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

## Warranty Information

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