

AURA[®] 191T Metalized Prismatic Grade Sheeting

Product Code: 0191T

Product Data Bulletin

Product Overview

Aura Optical Systems' AURA[®] 191T Metalized Prismatic Grade Sheeting is a microprismatic retroreflective sheeting with up to 5-years durability for vehicle markings, construction work zone signing, traffic signing, delineators, and similar applications. Meets the color and reflectivity requirements of ASTM D-4956 Type III, EN-12899 Class RA2, and other industry specifications.

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.
- Aggressive high-tack adhesive for bonding to many different sign substrates[†]
- Excellent handling for easier sign fabrication due to the proprietary Hybrid Polymer[™] technology of the face film.

Physical Characteristics & Properties

Durability	Up to 5-years when properly installed. Vertical exposure only.
Retroreflective Elements	Microprisms, metalized with vacuum-deposited aluminum
Product Thickness	Approximately 11.5 mils (excluding release liner)
Release Liner	Poly Release Liner
Adhesive	Aggressive high-tack adhesive for bonding to aluminum and many plastic sign substrates [†] .
Application Temperature	15°C (60°F) minimum

[†] Suitability of the product for a specific substrate should always be tested prior to sign fabrication. Aura Optical Systems offers a variety of testing services to assist with such testing. Please see the Technical Data Bulletins for more information.

Color Availability

Product Code	Color
0191T-00	White
0191T-01	Yellow
0191T-02	Red

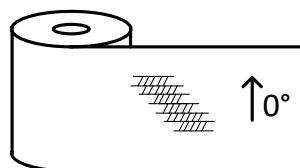
Other colors available upon request

Retroreflection

Minimum Coefficient of Retroreflection when Measured per ASTM E-810 for new sheeting. Average of 0° and 90° Rotations. (cd/lx/m²)

Color	Observation Angle	Entrance Angle	
		-4° / 5°	30°
White	0.2°	360	170
	0.33°	180	100
	0.5°	95	65
Yellow	0.2°	270	135
	0.33°	120	70
	0.5°	62	35
Red	0.2°	65	30
	0.33°	25	14
	0.5°	15	10

As shown in the diagram below, for maximum levels of retroreflection, AURA[®] 191T should be oriented at the 0° rotation with the parallelogram pattern tilting towards the right.



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Daytime Color

The daytime color of AURA® 191T 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

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® 191T 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.

For application to plastic substrates, especially low surface energy plastics, it is important to flame treat (or otherwise surface treat) the plastic substrate prior to application. Although AURA® 191T is supplied with an aggressive high-tack adhesive suitable for many plastics, it should be noted that all plastics are different. Many plastics, including fiberglass laminates, may contain ingredients or components that may migrate to the surface and adversely affect the adhesion or performance of the reflective sheeting. Similarly, the adhesive of AURA® 191T contains components that could potentially migrate into the plastic substrate. The user should always test the performance of AURA® 191T on their specific substrate.

Storage


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

Warranty Information

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