

# AURA<sup>®</sup> 114 Reflective Film

Product Code: 0114

## Product Data Bulletin

### Product Overview

AURA<sup>®</sup> 114 Reflective Film\*\* is a back-face laminate enclosed lens sheeting for use in the production of vehicle number plates, traffic signs, or other retroreflective signing articles. The specially engineered surface of the product allows for exceptional printing results on thermal transfer printers, ink-jet printers, and through many other digital printing or traditional printing methods. Once printed, AURA<sup>®</sup> 114 can be laminated to an acrylic, polycarbonate, or other plastic panel to complete the fabrication of a number plate or sign. It is backed by a protective polyester film on the reverse-side. Can be used in the manufacturing of vehicle number plates to meet the UK specification BS AU 145d:1998, the French specification "Arrêté du 1er Avril 1996" modified by "Arrêté du 27 Avril 2007", and other industry standards.

\*\* Covered by one or more US or International Patents

### Physical Characteristics & Properties

Durability	Up to 5-years when properly converted and laminated to a clear plastic panel
Retroreflective Elements	Glass beads (Enclosed lens)
Sheeting Thickness	240µm (approximately 9.5 mils)
Face Film	Matte Printing Surface
Backing Film	Polyester

### Watermark

AURA<sup>®</sup> 114 sheeting can be supplied with a watermark or security marking as required to meet various government specifications. Minimum volume requirements may apply.

### Retroreflection

When properly laminated to a clear and transparent plastic panel (such as acrylic or polycarbonate), AURA<sup>®</sup> 114 will provide the retroreflective properties listed below.

Minimum Coefficient of Retroreflection (cd/lx/m<sup>2</sup>)

Color	Observation Angle	Entrance Angle		
		5°	30°	40°
White	0.2°	60	25	10
	0.33°	50	24	9
	1.5°	5	2.5	1.5
Yellow	0.2°	40	18	4
	0.33°	30	10	2
	1.5°	3.5	1.5	0.5

### Color Availability

Product Code	Color
0114-00	White
0114-01	Yellow

Other colors available upon request.

### Product Availability / Roll Sizes

Available in 1240mm (48") widths in roll lengths of 45.7 meters (50 yards) or larger. AURA<sup>®</sup> 114 can also be supplied in custom die-cut sheets.



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## Application & Conversion

AURA® 114 Reflective Film should be conditioned above 15°C (60°F) for at least 24-hours prior to conversion.

Although designed for use on a broad range of thermal transfer printers using many different ribbon systems, the user may need to adjust temperature settings, printing speeds, or other parameters to optimize print quality and saturation. Thermal transfer ribbons with at least 5% resin content work best.

For ink jet printing, solvent-based systems work best. The user may need to adjust temperature and dryer settings to above 35°C (60°F) to optimize print quality.

To maximize reflectivity levels of the finished vehicle number plates or sign panels, an optically-clear and transparent adhesive should be utilized to laminate AURA® 114 to the plastic panel. Solvent-based acrylic adhesives work best. For outdoor usage, the adhesive should be non-yellowing.

Plastic sign panels should be fully dried prior to lamination as residual out-gassing of the plastic panel may promote delamination or bubbling.

## Storage


Store in a cool, dry area. Use within 1-year of receipt of the product. Store rolls in original shipping cartons or suspend horizontally from a rod through the core.

## Warranty Information

The information, technical data, and statements made herein are believed to be reliable, but the accuracy or completeness thereof is not guaranteed and should not be construed as a warranty or representation for which Aura Optical Systems assumes legal responsibility. All Aura Optical Systems products are sold with the understanding that the Purchaser has independently determined the suitability of such products for its purposes.

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