

# AURA<sup>®</sup> 112 Reflective Vinyl Engineer Grade

Product Code: 0112

Product Data Bulletin

## Product Overview

Aura Optical Systems AURA<sup>®</sup> 112 Reflective Vinyl Engineer Grade sheeting is a flexible, enclosed lens retroreflective sheeting intended for use on applications requiring both product flexibility and durability of up to 5-years. Perfect for vehicle markings or advertising graphics. AURA<sup>®</sup> 112 is conformable over smooth ridges and curves. It exhibits a very good bond to the most common substrates including painted steel and aluminum.

## Key Features

- Similar daytime and nighttime appearance
- Retains retroreflectivity when wet
- Conformable around smooth curves
- Digitally printable and screen printable with a variety of ink systems

## Color Availability

Product Code	Color
0112-00	White
0112-01	Yellow
0112-02	Red
0112-05	Blue
0112-07	Green

Other colors available upon request.

## Retroreflection

Typical Coefficient of Retroreflection at 0.2° Observation Angle / -4° Entrance Angle.

Color	R <sub>A</sub> (cd/lx/m <sup>2</sup> )
White	85
Yellow	60
Red	16
Blue	6
Green	10

## Physical Characteristics & Properties

Durability	Up to 5-years, when properly converted and installed in vertical position
Retroreflective Elements	Glass beads (Enclosed lens)
Film Thickness	200µm (approximately 8.0 mils) (excluding release liner)
Face Film	Polymeric Vinyl
Adhesive	50µm (2 mils) Permanent pressure-sensitive adhesive
Release Liner	Poly-coated paper liner
Application Surface	Painted metals. Can be applied over gentle curves. Do not use wet application method. Not recommended for unpainted stainless steel.
Application Temperature	15°C (60°F) minimum
In Use Temperature Range	-20° to 70°C (-4° to 160°F)

## Application & Conversion

AURA<sup>®</sup> 112 Reflective Vinyl Engineer Grade can be printed with a wide variety of ink systems, including solvent-based screen inks, UV inks, and many digital printers. Compatibility and adhesion characteristics of an ink should always be tested through a test print. To maintain high levels of retroreflection, transparent inks should be utilized.

Sheeting should be conditioned above 15°C (65°F) for at least 24-hours prior to printing, lamination, or application.

If over-laminating to protect a digital print, a premium cast gloss over-laminate film is recommended. Lamination should occur only after the printed graphics are completely dry. It is best to allow the graphics to dry overnight. Use only cold lamination methods. Ensure lamination is wrinkle free and that the over-laminate film enters the nip without any wrinkles. If wrinkles occur, the nip



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## Application & Conversion (continued)

pressure setting may be too high. Avoid high tensions on either the printed reflective film or the over-laminate film. After lamination, the material should lay flat without any curling. If curling is present, the tensions or nip pressures may be too high.

Application to the final surface should occur using a squeeze roll applicator or by hand using a firm rubber roller or plastic squeegee. Apply firm pressure during application to bond the adhesive to the substrate. Use a dry application method. Do not use detergent, water, or any commercial application liquids to position the reflective sheeting. A heat gun may assist conformability of the film around irregular surfaces.

Slight tenting may occur around rivets, sharp ridges, or some complex curves.

Some automotive paints may continue to out gas for some time which could disrupt application of the sheeting. Be sure painted surfaces are fully cured prior to application of the product.

AURA<sup>®</sup> 112 Reflective Vinyl Engineer Grade can be computer sign cut using a variety of different industry plotters.

## Roll Sizes

AURA<sup>®</sup> 112 Reflective Vinyl Engineer Grade is available in 45.7 meter (50 yard) rolls in different widths up to 1240mm (48 inches).

## Storage


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

## Warranty Information

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