

# AURA<sup>®</sup> 124 Digital Engineer Grade Reflective Vinyl

Product Code: 0124

Product Data Bulletin

## Product Overview

Aura Optical Systems' AURA<sup>®</sup> 124 Digital Engineer Grade Reflective Vinyl is an enclosed lens retroreflective vinyl intended for use on graphics and signing applications. With a durability of up to 7-years, AURA<sup>®</sup> 124 can be used for advertising graphics, vehicle markings, traffic signs, and many other applications. AURA<sup>®</sup> 124 features a cast vinyl face film, which allows for exceptional printing results on a variety of digital printers. It is supplied with a permanent pressure-sensitive adhesive and exhibits a very good bond to the most common substrates, including painted steel, aluminum, and many OEM paints. Meets the performance requirements of ASTM D-4956 Type I, EN-12899 Class RA1, and other industry specifications.

## Key Features

- Similar daytime and nighttime appearance
- Retains retroreflectivity when wet
- Digitally printable on a variety of printer systems
- Computer sign cuttable

## Color Availability

Product Code	Color
0124-00	White
0124-01	Yellow
0124-02	Red
0124-04	Orange
0124-05	Blue
0124-07	Green

Other colors available upon request

## Retroreflection

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

Color	RA (cd/lx/m <sup>2</sup> )
White	85
Yellow	60
Red	20
Orange	35
Blue	7
Green	15

## Physical Characteristics & Properties

Durability	Up to 7-years, when properly converted and installed in a vertical position. Horizontal use may decrease the durability of the product and is not recommended.
Retroreflective Elements	Glass beads (Enclosed lens)
Film Thickness	160µm (approximately 6.5 mils) (excluding release liner)
Face Film	Cast vinyl
Adhesive	50µm (2 mils) Permanent pressure-sensitive adhesive
Release Liner	Poly-coated paper liner
Application Surface †	Flat surfaces or gentle curves. The adhesive is designed for aluminum and many painted surfaces. Not recommended for unpainted stainless steel.
Application Temperature	15°C (60°F) minimum

† Suitability of the product for an application surface should always be tested by the user prior to application.

## Application & Conversion

AURA<sup>®</sup> 124 Digital Engineer Grade can be printed with a wide variety of digital ink systems. Additionally, AURA<sup>®</sup> 124 can be printed with both solvent-based screen inks as well as many UV inks. 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



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Data Bulletin: 0124-01-21-r1  
Jan, 2021

## Application & Conversion (continued)

free and that the over-laminate film enters the nip without any wrinkles. If wrinkles occur, the nip 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 surfaces must be clean and free of dust, rust, oils, grease or other contaminants. Application 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. Always apply pressure from the center of the graphic towards the edges to minimize air entrapment or bubbles. 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 curved surfaces.

AURA® 124 is intended for use on flat sign surfaces or gentle curved surfaces. Slight tenting may occur around rivets, sharp ridges, or some complex curves.

If applied to a vehicle, please note that 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.

The suitability of the product on any application surface should always be tested by the user prior to application.

AURA® 124 Digital Engineer Grade can be computer sign cut using a variety of different industry plotters. A 60 degree blade is recommended for most plotters.

## Roll Sizes

AURA® 124 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

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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