

AURA[®] 106 Flexible Commercial Grade

Product Code: 0106

Product Data Bulletin

Product Overview

Aura Optical Systems AURA[®] 106 Flexible Commercial Grade sheeting is a highly flexible and digitally printable retroreflective sheeting for short-term graphics applications. Key applications include reflective vehicle wraps, vehicle markings, promotional signing, or advertising graphics. AURA[®] 106 can be digitally printed with many different solvent-based printers. It is conformable over ridges and curves and is supplied with a permanent pressure-sensitive adhesive and easy-release paper liner.

Key Features

- Capable of use for reflective vehicle wraps
- Similar daytime and nighttime appearance
- Retains retroreflectivity when wet
- Conformable around curves and other irregular surfaces
- Printable with a variety of digital printers or ink systems

Color Availability

Product Code	Color
0106-00	White
0106-01	Yellow
0106-02	Red
0106-05	Blue
0106-07	Green

Other colors available upon request.

Retroreflection

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

Color	R _A (cd/lx/m ²)
White	65
Yellow	40
Red	12
Blue	5
Green	7

Physical Characteristics & Properties

Retroreflective Elements	Glass beads (Enclosed lens)
Film Thickness	135µm (approximately 5.5 mils) (excluding release liner)
Face Film	Flexible Urethane
Adhesive	50µm (2 mils) Permanent pressure-sensitive adhesive
Release Liner	Poly-coated paper liner
Application Surface	Painted metals. Can be applied over curves or ridges. Wet application method is not recommended. 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)

Exterior Durability

When properly applied to a vertical surface, AURA[®] 106 will exhibit outdoor durability from 1 to 3-years. The actual product life will depend upon a variety of factors, including the degree of southern versus northern exposure, specific climate conditions, and the level of continuous outdoor use. Using a protective high-gloss over-laminate film can extend the life of the product. Application to a horizontal surface may reduce the durability and is not recommended.

Printing Guidelines

AURA[®] 106 Flexible Commercial Grade can be screen printed or digitally printed with a wide variety of ink systems. Vinyl-based solvent inks and other solvent-based inks are most suitable. 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.



Aura Optical Systems, L.P.

7415 Whitehall, Suite 111

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

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

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

www.auraopticalsystems.com

Data Bulletin: 0106-r9
July, 2011

Digital Printing Guidelines

The following recommendations are made to improve printing quality and enhance ink adhesion:

- Use only recommended, original OEM solvent-based inks with each printer model
- Use uni-directional printing to allow the ink additional time to dry and bond to the reflective sheeting surface
- Increase temperature settings on the printer to allow the ink to fully dry and bond to the reflective sheeting surface
- Always perform a cross-hatch adhesion tape test to ensure proper ink anchorage
- Apply a durable high-gloss cast vinyl over-laminate to protect the ink

Application & Conversion Guidelines

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

If over-laminating a digital print, a gloss premium cast vinyl film is recommended. Lamination should occur only after the printed graphics are completely dry. It is best to allow 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, nip pressure settings 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 occurs, tensions or nip pressures may be too high.

The final application surface should be cleaned and dried prior to application. Dirt or loose paint must be removed. Certain automotive paints may continue to out gas for some time which could disrupt application. Be sure painted surfaces are fully cured prior to application.

Use only a dry application method. Do not use detergent, water, or any commercial application liquids to position the reflective sheeting. 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. Use of heat may be necessary to optimize conformance around irregular surfaces or curves.

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

Roll Sizes

AURA® 106 Flexible Commercial 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

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.

*The following is made in lieu of all other express or implied warranties. **No implied warranty of merchantability or fitness for a particular purpose is made.*** Aura Optical Systems products are warranted to be free from defects in material or workmanship for a period of one year from date of shipment if the product is properly stored and/or applied. Aura Optical Systems' sole obligation shall be to replace such quantity of product proven to be defective. Aura Optical Systems shall not be liable for any injury, loss or damage, direct or consequential, whether foreseeable or not, arising out of the use or of the inability to use the product.

Trademarks

AURA®, the Aura Optical Systems logo, and the  symbol are registered trademarks of Aura Optical Systems, L.P., U.S.A.



Aura Optical Systems, L.P.

7415 Whitehall, Suite 111
Ft. Worth, Texas 76118 U.S.A
General / International Inquires: +1 (801) 668-3439
USA Sales Inquiries: +1 (682) 227-1208
www.auraopticalsystems.com