# ORALITE® V98 Pre-Striped Chevron

# **Description**

ORALITE® V98 Pre-Striped Chevron sheeting is a pre-striped fluorescent lime / red in the chevron pattern eliminating the need for piecing sheeting. It is for vehicles that require increased visibility such as fire, EMS, police, utility, telecom and DOT. The sheeting can be die or plotter cut. The sheeting applies easily to surfaces. The single layer product does not require edge sealing. The Conformable Chevron Sheeting is available in Left Hand and Right Hand configurations. The sheeting meets and exceeds the requirements of NFPA 1901.

#### **Product Construction**

ORALITE® V98 Pre-Striped Chevron material is composed of cube corner (microprism) retroreflective elements integrally bonded to a flexible, smooth-surfaced, tough and weather-resistant UV stabilized polymeric film. The prism surfaces are coated with a vacuum deposition of aluminum to provide a mirror surface to the prism facets.

# Reflectivity

Minimum values for the coefficient of retroreflection are shown in Table 1 when illuminated with CIE standard illuminant A and measured with the provisions of CIE No.54.2. Rotation angles of 0° and 90° are measured and averaged.

### Color

ORALITE® V98 Pre-Striped Chevron color shall be located in the area defined by the chromaticity coordinates and luminance factor provided in Table 2, when measured in accordance with the provisions of CIE No. 15.2. The four pairs of coordinates determine the acceptable color when measured with standard illuminant D65 using a Hunter ColorFlex.

#### **Adhesive**

The adhesive is protected by a release liner which shall be removed by peeling, without soaking in water or other solvents. The adhesive produces such a bond that a 1" (50 mm) strip shall support a 1 3/4 pound (0.79 kg) weight for 5 minutes without the strip peeling for a distance of more than 2" (50 mm) when applied to a smooth aluminum surface as specified in the ASTM D4956, section 7.5 adhesion test.

## **Impact Resistance**

Following application to a smooth surface aluminum rectangle, 0.020" by 3" by 6", the specimen is conditioned for 24 hours at 72°F and 50% relative humidity. The sheeting shall show no cracking when the face of the panel is subjected to an impact of a two pound weight with a 5/8" rounded tip dropped from a 100 in/lb setting on a Gardner variable impact tester. IG-1120.

#### **Flexibility**

The sheeting is conditioned for 24 hours at 72°F and 50% relative humidity. The release liner is removed and the sheeting is sufficiently flexible to show no cracking when bent in one second's time around a 1/8" diameter mandrel with the adhesive contacting the mandrel.

#### **Solvent Resistance**

ORALITE® V98 Pre-Striped Chevron material meets the requirements of LS-300C solvent resistance, section 3.6.7, when tested as specified in Table VI, test method 4.4.6.

# **Specular Gloss**

The sheeting shall have a specular gloss of not less than 40 when tested in accordance with ASTM method D523 at an angle of 85°.

# **Shrinkage**

A 9" x 9" specimen of the sheeting with liner is conditioned a minimum of one hour at 72°F and 50% relative humidity. The liner is then removed and the specimen is placed on a flat surface with the adhesive side up. Ten minutes after the liner is removed and again after 24 hours, the specimen is measured to determine the amount of dimensional change. The specimen will not shrink in any dimension more than 1/32" in 10 minutes and 1/8" in 24 hours.

#### **Application Instructions**

Sheeting must be applied when the air and surface temperature is 65°F or above. Use a clean towel and Isopropyl alcohol, or similar, to wipe the surface before application. If any air bubbles are trapped, use a pin to puncture the bubble and a squeegee to push the air towards the pin hole.

Table 1
Coefficient of Retroreflection ↑ (R<sub>A</sub>)

| Observation Angle | Entrance Angle | Red | Fluorescent<br>Lime |  |  |
|-------------------|----------------|-----|---------------------|--|--|
|                   | -4°            | 75  | 300                 |  |  |
| 0.20°             | 30°            | 40  | 150                 |  |  |
|                   | 45°            | 10  | 40                  |  |  |
| 0.50°             | -4°            | 20  | 65                  |  |  |
|                   | 30°            | 10  | 35                  |  |  |
|                   | 45°            | 4   | 10                  |  |  |

†all values have units of cd/fc/ft2 (cd/lx/m2)

Table 2
Color Specification Limits

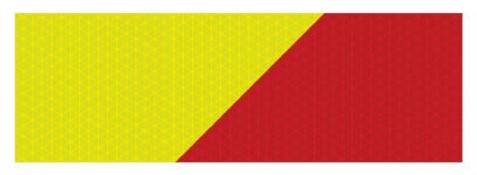
|                 | Chromaticity Coordinates‡ |       |       |       |       |       |       |       | Luminance   |      |
|-----------------|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------------|------|
| Color           | 1                         |       | 2     |       | 3     |       | 4     |       | Factor (Y%) |      |
|                 | X                         | у     | Х     | у     | х     | у     | х     | у     | Min.        | Max. |
| Red             | 0.648                     | 0.351 | 0.735 | 0.265 | 0.629 | 0.281 | 0.565 | 0.346 | 2.5         | 15   |
| FI Yellow Green | 0.387                     | 0.610 | 0.369 | 0.546 | 0.428 | 0.496 | 0.460 | 0.540 | 60          |      |

<sup>‡</sup>The four pairs of chromaticity coordinates determine the acceptable color in terms of the CIE 1931 Standard Colorimetric System measured with Standard Illuminant D65.

# Warranty

ORALITE® V98 Pre-Striped Chevron has a 5 year warranty. Please contact ORAFOL Americas for details.

# **Film Pattern**



#### **IMPORTANT NOTICE**

All ORALITE® products are subject to careful quality control throughout the manufacturing process and are warranted to be of merchantable quality and free from manufacturing defects. Published information concerning ORALITE® products is based upon research which the Company believes to be reliable although such information does not constitute a warranty. Because of the variety of uses of ORALITE® products and the continuing development of new applications, the purchaser should carefully consider the suitability and performance of the product for each intended use, and the purchaser shall assume all risks regarding such use. All specifications are subject to change without prior notice.

WARNING: This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

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