

## Description

ORALITE® IMO/SOLAS FD1404 is tough, weather and solvent resistant retroreflective material designed for use in rugged maritime environments. It is specifically designed for use on inflatable devices, such as life preservers, survival suites and life rafts.

ORALITE® IMO/SOLAS FD1404 is compliant with U.S. Department of Transportation specification USCG 46 CFR, section 164.018 and International Maritime Organization (IMO) Resolution A.658 (16) for Type I devices.

## Product Construction

ORALITE® IMO/SOLAS FD1404 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 to provide a mirror surface to the prism facets. The resulting film is not more than 0.016" thick, and comes with an aggressive pressure sensitive adhesive backing.

## Reflectivity

Typical coefficient of retroreflection (R') of the ORALITE® IMO/SOLAS FD1404 is shown in Table 1 when illuminated with CIE standard illuminant A and measured with the provisions of CIE No.54.

## Color

ORALITE® IMO/SOLAS FD1404 is available in silver, (retro-reflection in white). The color shall be located in the area defined by the chromaticity coordinates provided in Table 2, when measured in accordance with the provisions of CIE No. 15 and illuminated with the CIE standard illuminant D65 using 45°/0° or 0°/45° geometry.

## Product Certification

The product is certified by BUREAU VERITAS to IMO resolution A.658(16) for Type I.

## Backing

ORALITE® IMO/SOLAS FD1404 is supplied with a pressure sensitive adhesive. The adhesive is protected by a release liner which shall be removed by peeling, without soaking in water or solvents.

## Roll Size

Standard rolls are 2 in x 150 ft. The product is also available in other width configurations.

## Storage and Shelf Life

Store in a cool, dry area at 68°F/50% relative humidity and use within one year of receipt. All rolls including partially used rolls should be stored in original packaging, tightly wound and taped.

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

| Observation Angle | Entrance Angle |     |     |
|-------------------|----------------|-----|-----|
|                   | 5°             | 30° | 45° |
| 0.10°             | 1000           | 575 | 150 |
| 0.20°             | 700            | 400 | 100 |
| 0.50°             | 160            | 75  | 50  |
| 1.00°             | 20             | 15  | 10  |

\*Candelas/Lux/Square Meter



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**Table 2**  
**Color Specification Limits**

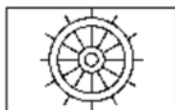
| Color | Chromaticity Coordinates* |       |       |       |       |       |       |       |
|-------|---------------------------|-------|-------|-------|-------|-------|-------|-------|
|       | 1                         |       | 2     |       | 3     |       | 4     |       |
|       | x                         | y     | x     | y     | x     | y     | x     | y     |
| White | 0.300                     | 0.270 | 0.385 | 0.355 | 0.345 | 0.395 | 0.260 | 0.310 |

\* The four pairs of chromaticity coordinates determine the acceptable color in terms of the CIE diagram.

**Wheel Mark**

ORALITE® IMO/SOLAS FD1404 carries a permanent ships wheel marking for easy recognition of the approved quality of the material.

SOLAS



2690/XX  
 ORALITE®

NOTE: In place of the XX the last two digits of the year manufactured will provided.

**Analysis and Assessment of Risk**

Applicable standards, testing procedures, and installation instructions are considered adequate to fully address all reasonably foreseeable risks for the intended use of this material.

**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 may expose you to chemicals which are known in the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

ORALITE® is a registered trademark of ORAFOL Europe GmbH.



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