

## Description

ORALITE® FD 1404 Imo Flex is a tough weather and solvent resistant product designed for rugged outdoor maritime use. It was specifically designed for use on inflatable devices, such as life preservers or jackets and life rafts. It is compliant with U.S. Department of Transportation specification USCG 46 CFR, section 164.018 and International Maritime Organisation (IMO) resolution A.658(16) Type I.

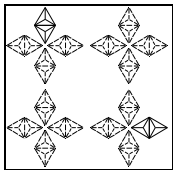
## Product Construction

ORALITE® FD 1404 Imo Flex is composed of cube corner (microprism) retroreflective elements integrally bonded to a flexible, smooth-surfaced tough and weather resistant UV stabilised polymeric film. The prism surfaces are coated with a vacuum deposition of aluminium to provide a mirror surface to the prism facets. The resulting film is not more than 0,410 mm thick, and comes with an aggressive pressure sensitive adhesive or a textile backing.

## Product Approval

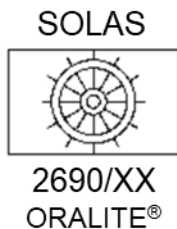
IMO resolution A.658(16).

## Film Logo Pattern



## Wheel Mark

ORALITE® IMO/SOLAS FD 1404 carries a permanent ships wheel marking for easy recognition of the approved quality of the material.



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

## Colour

ORALITE® FD 1404 Imo Flex is available in silver (retroreflection in white). The colour shall be located in the area defined by the chromaticity coordinates provided in Table 1, when measured in accordance with CIE No. 15 and illuminated with the CIE standard illuminant D<sub>65</sub> using 45° / 0° or 0° / 45° geometry.

## Retroreflectivity

When illuminated with CIE illuminate A and measured with provisions of CIE No. 54 the typical coefficient of retroreflection (RA) of ORALITE® FD 1403 is shown in Table 2.

## Adhesive

ORALITE® FD 1404 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.

## Application Instructions

Please contact ORAFOL for full instructions.

**Shelf Life**

The product must be used within one year from the shipment date. All rolls including partially used rolls should be stored in original packaging, tightly wound. Store in a clean and dry area, away from direct sunlight. Store at 20° C and 50% relative humidity.

**Table 1**  
**Colour Specification Limits (Daytime)**

Colour	Chromaticity Coordinates*							
	1		2		3		4	
	x	y	x	y	x	y	x	y
Silver	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 chromaticity when measured with standard illuminant D<sub>65</sub> using a Hunter LabScan spectrophotometer.

**Table 2**  
**Retroreflectivity**

Observation Angle	Entrance Angle ( $\beta_1, \beta_2=0$ )		
	5°	30°	45°
<b>0,10°</b>	1000	600	175
<b>0,20°</b>	700	400	140
<b>0,50°</b>	125	80	55
<b>1,00°</b>	20	15	10

All values have units of cd/lux/m<sup>2</sup>.

**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.

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