### **Description**

ORALITE® FD 1403 is a tough weather and solvent resistant product designed for rugged outdoor maritime use. 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). The approval is for Type I and Type II. For application to rigid and non-rigid maritime substrates, i.e. life rafts, life buoys, life vests and life boats and is available in both adhesive and fabric backed versions.

# **Product Construction**

ORALITE® FD 1403 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 0,02 cm 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 FD1404 carries a permanent ships wheel marking for easy recognition of the approved quality of the material.

# **SOLAS**



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

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#### Colour

ORALITE® FD 1403 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  $D_{65}$  using  $45^{\circ}$  /  $0^{\circ}$  or  $0^{\circ}$  /  $45^{\circ}$  geometry.

### Retroreflectivity

When illuminated with CIE illuminate A and measured with provisions of CIE No. 54 the coefficient of retroreflection (RA) of ORALITE® FD 1403 shall not measure less than the values shown in Table 2.

### **Adhesive**

ORALITE® FD 1403 can be 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)

	Chromaticity Coordinates*							
Colour	•	1	2	2	3		4	
	х	у	х	у	х	у	х	У
Silver	0,300	0,270	0,385	0,355	0,345	0,395	0,260	0,310

<sup>\*)</sup> The four pairs of chromaticity coordinates determine the acceptable chromaticity when measured with standard illuminant D<sub>65</sub> using a Hunter LabScan spectrocolorimeter.

Table 2
Retroreflectivity

Observation Angle	Entrance Angle (β <sub>1</sub> , β <sub>2</sub> =0)					
	5°	30°	45°			
0,10°	1000	575	150			
0,20°	700	400	100			
0,50°	160	75	50			
1,00°	25	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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