

Technical Product Bulletin

Reflexite® IMO/SOLAS FD1403 (M82)

*For application to rigid and non-rigid maritime substrates
i.e. life rafts, life buoys, life vests and life boats.*
Bulletin RA-2309

Product

Reflexite IMO/SOLAS FD1403 (M82) 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 Organization (IMO) Resolution A.658(16). The approval is for Type I and Type II.

Construction

Reflexite IMO/SOLAS FD1403 (M82) 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 0.008" thick, and comes with an aggressive pressure sensitive adhesive or a textile backing.

Color

Reflexite IMO/SOLAS FD1403 (M82) is available in silver (retro-reflection in white). The color shall be located in the area defined by the chromaticity coordinates provided in Table 1, 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.

Reflectivity

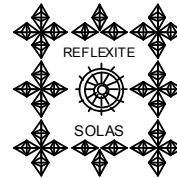
Typical coefficient of retroreflection (R') of the Reflexite IMO/SOLAS FD1403 (M82) is shown in Table 2 when illuminated with CIE standard illuminant A and measured with the provisions of CIE No.54.

Adhesive

Reflexite IMO/SOLAS FD1403 (M82) 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.

Film Logo Pattern

The material carries a permanent ships wheel marking for easy recognition of the approved quality of Reflexite IMO/SOLAS FD1403 (M82).



Roll Size

Standard rolls are 2 in x 150 ft.
The product is also available in other configurations including patches and shapes.

Product Approval(s)

The product is fully compliant with specification(s):
IMO resolution A.658(16)

Storage & Shelf Life

Store in a cool, dry area and use within one year of receipt. Partially used rolls should be tightly wound to the core and taped.

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Table 1 - Color

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 chromaticity on the CIE diagram.

Table 2 – Typical Coefficient of Retro-reflection**

Observation Angle	Entrance Angle ($\beta_1, \beta_2=0$)		
	5°	30°	45°
0.10°	1,000	575	150
0.20°	700	400	100
0.50°	160	75	50
1.00°	25	15	10

** All values have units of cd/lux/m².