

ORALITE® VC 612RA

Flexibright™ Fleet Marking Grade

Technical
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Description

ORALITE® VC 612RA Flexibright™ Fleet Marking Grade is a tough weather resistant product designed for rugged outdoor use for livery applications on emergency services vehicles. The material is die cuttable and plotter cuttable and easy to apply onto smooth painted or unpainted vehicle surfaces.

ORALITE® VC 612RA Flexibright™ Fleet Marking Grade 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 material is not more than 0,45 mm thick and comes with a pressure sensitive adhesive. The product is single layer, with no need for edge sealing.

Advantages

ORALITE® VC 612RA Flexibright™ has the following unique features:

Impact Resistance – The product does not delaminate when impacted due to its single layer metallised construction.

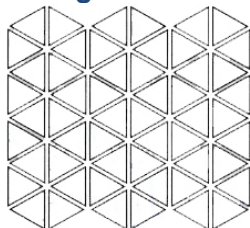
Flexibility – The product is suited for application to flat or curved surfaces (please refer to application instructions)

Repositionability - The product has excellent initial repositionability.

Product Approval

- Complies with the regulations in NIT 273:2006
- Homologation French Fire Vehicle Specification: TPESC-B 13223

Film Logo Pattern



Retroreflectivity

Typical values for the coefficient of retroreflection (R') for ORALITE® VC 612RA Flexibright™ are shown in Table 1 and met when illuminated with CIE standard illuminant A and measured with the provisions of CIE no. 54. The values are an average of rotation angles 0° and 90°.

Colour

ORALITE® VC 612RA Flexibright™ Fleet Marking Grade is available in fluorescent lime and red in chevron pattern. The fluorescent lime / red stripes measure 10 cm in width and are at a 45° angle. The colour is 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 (illuminant D65) and shall comply with the specifications of ASTM D8514.

Adhesive

The adhesive has been specifically designed to allow for excellent initial repositionability by dry application method. In combination with the *RapidAir*® liner (RA), an application without air inclusion, especially in large scale applications, is quick and easy.

Application Instructions

Material must be applied when the air and surface temperature is between 10° C and 28° C to assure proper adhesive bonding. Surfaces must be cleaned for grease, oil and dirt. Use a clean towel and isopropyl alcohol to wipe the surface before application.

Please go to the ORAFOL website for complete application instructions.



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Shelf Life

The sheeting must be used within 1 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 – Retroreflectivity

Colour	Observation / Entrance Angle					
	0,33° / 5° (β ₂)	0,33° / 20° (β ₁)	0,33° / 30° (β ₂)	1,50° / 5° (β ₂)	1,50° / 20° (β ₁)	1,50° / 30° (β ₂)
Fl. lime	100	50	25	4	2	1
Red	25	17	14	1	0,5	0,5

All values have units of cd/lux/m².

Table 2 - Colour Specification Limits (Daytime)

Colour	Chromaticity Coordinates*									
	1		2		3		4		Y%	
	x	y	x	y	x	y	x	y	Min.	Max.
Fl. lime	0,387	0,610	0,356	0,494	0,398	0,452	0,460	0,540	40	----
Red	0,648	0,351	0,735	0,265	0,629	0,281	0,565	0,346	3	----

*) The four pairs of chromaticity coordinates determine the acceptable chromaticity when measured with standard illuminant D65

Physical and Chemical Properties

Thickness¹ (without protective paper)	0.45 mm
Temperature resistance	adhered to aluminium, -40° C to +82° C (-40° F to 180° F)
Resistance to cleaning agents adhered to aluminium	8h in solution (0.5% household cleaning agents) at room temperature and 65° C (150° F): no variation
Adhesive power¹ (FINAT-TM1 after 24h, stainless steel)	>15 N/25 mm (1 inch)
Shelf life²	1 year
Application temperature	> +15° C
Service life by specialist application³ under vertical outdoor exposure	5 years

¹ average

² in original packaging, at 20°C and 50% relative humidity

³ standard central European climate

IMPORTANT NOTE

All ORAFOL products are subject to careful quality control throughout the entire manufacturing process, and it is ensured that they are of merchantable quality and free from manufacturing defects. The information published is based on our analyses and studies and does not constitute any warranted properties or any agreement as to quality. Due to the diverse possibilities of use of ORAFOL products and the constant development of new applications, the buyer should carefully consider the suitability and performance of the product for the respective purpose; it bears all risks associated with such use. No warranty is given for purposes other than those listed in the Technical Data Sheet or for applications that are not processed in accordance with ORAFOL's processing instructions.

The durability of the end product depends upon a variety of factors, including but not limited to substrate selection and preparation, compliance with the recommended application guidelines, geographical area, exposure conditions and maintenance of the ORAFOL material and of the end product. Product defects caused by the substrate or improper surface preparation do not lie within ORAFOL's sphere of responsibility.

When using ORAFOL products, the pertinent national regulations are to be observed. ORAFOL recommends that you obtain the current stipulations from your local authority and ensure that the product meets these requirements. Please contact ORAFOL for further information.

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