

## Description

ORALITE® 5200RA Economy Grade is a weatherproof, self-adhesive and glossy retroreflective film which boasts excellent printability and easy application. It is ideal for a short-term outdoor use for which a minimum of retro-reflection is required. Its pressure activated adhesive is easy to apply and can be removed after service life. The product is available in common traffic colours (for details see product data).

The retro reflective system of the ORALITE® 5200RA Economy Grade consists of catadioptric glass beads which are embedded in a transparent layer of plastic material (design A, formerly type I).

## Front Material

Special cast PVC film for excellent printability.

## Release Paper and adhesive

The adhesive is a solvent polyacrylate which is designed for easy application. The release paper (155 g/m<sup>2</sup>) has a PE coating applied to silicone-coated paper on either side. The *RapidAir*® technology enables easy and quick application reducing the incidence of bubbles & creases, especially of large-sized applications. The product code and batch number are applied to the backside of silicone-coated paper.

## Application/Processing

ORALITE® 5200RA Economy Grade is ideal for a short-term outdoor use for which a minimum of retro-reflection is required. The smooth surface shows a scratch resistance and impact strength, and a very good printability. The ORALITE® 5200RA Economy Grade has an adhesive with an excellent adhesion on metal as well as painted surfaces. It is designed for an easy and bubble free application. While the use of heat will help to partially remove the product, a solvent based adhesive remover maybe required to completely remove any residual adhesive. Please contact your ORAFOL Reflective Solutions Division representative for advice relating to the above.

Surfaces to which the material will be applied must be thoroughly cleaned from dust, grease or any contamination which could affect the adhesion of the material. Freshly lacquered or painted surfaces should be completely cured. The compatibility of selected lacquers and paints should be tested by the user, prior to application of the material. The self adhesive reflective material can only be used for dry application. For other applications the user is fully responsible for evaluating the suitability of the product, and for any risks associated with that use.

ORALITE® 5200RA can be screen printed with ORALITE® 5018 Screen Printing Ink or inkjet printed with most solvent based inks, UV- or Latex inks. Please refer to the chosen ink manufacturer's instructions to determine if an application laminate is required. If required, it is recommended that the material is laminated with ORALITE® 5051, ORAGUARD® 290F or ORAGUARD® 293F in order to provide increased UV protection. When using non-ORAFOL inks or printers, the application must be tested and approved by the customer.

## Product Data

**Typical values for the coefficient of retroreflection** (new sheeting, measured using CIE standard illuminant A, and the provisions of CIE No. 54.2):

Observation angle	Specific coefficient of retroreflection R <sup>r</sup> in cd / (lx m <sup>2</sup> )			
	0.2°		0.33°	
	5°	30°	5°	30°
<b>Entrance angle</b>	<b>5°</b>	<b>30°</b>	<b>5°</b>	<b>30°</b>
<b>white (010)</b>	50	22	36	15
<b>yellow (020)</b>	32	14	22	9
<b>red (030)</b>	12	5	8	3
<b>orange (035)</b>	16	7,5	12	5
<b>blue (050)</b>	3	1.3	1.9	0.6
<b>green (060)</b>	6	2.5	4.5	1.8

Colour specification limits for new sheeting at daylight (new sheeting, measured in accordance with CIE No. 15.2):

Table 2 – Chromaticity coordinates									
Colours	1		2		3		4		Luminance Factor $\beta$
	x	y	x	y	x	y	x	y	
white (010)	0.305	0.315	0.335	0.345	0.325	0.355	0.295	0.325	$\geq 0.35$
yellow (020)	0.494	0.506	0.470	0.480	0.513	0.437	0.545	0.455	$\geq 0.27$
red (030)	0.735	0.265	0.700	0.250	0.607	0.343	0.655	0.345	$\geq 0.05$
orange (035)	0.631	0.369	0.552	0.359	0.506	0.404	0.570	0.430	$\geq 0.12$
blue (050)	0.100	0.109	0.146	0.156	0.183	0.115	0.137	0.038	$\geq 0.01$
green (060)	0.007	0.703	0.216	0.448	0.147	0.400	0.018	0.454	$\geq 0.04$

## Physical and Chemical Properties

Thickness* (without protective paper)	105 micron (4.2 mils)
Temperature resistance**	Adhered to aluminium, -50° C to +82° C
Adhesive power* (FINAT-TM1 after 24h)	adhered to stainless steel:16 N/25 mm (1 inch) adhered to acrylic coating:10 N/25 mm (1 inch)
Shelf life**	2 years
Application Temperature	> +15° C (+60 °F)
Service life by specialist application*** under vertical outdoor exposure	3 years

\* average

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

\*\*\*standard central European climate

## IMPORTANT NOTICE

When using ORALITE® sheeting the relevant national specifications have to be complied with. ORAFOL recommends you obtain the current requirements from your local authority and ensure product conformance with such requirements. Please contact ORAFOL for further information.

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.

The batch traceability according to ISO 9001 is possible on the basis of the roll number.

No warranty is given for purposes other than those listed in the Technical Datasheet or which are not processed according to ORAFOL's processing and handling instructions. The durability of the signs will depend on a variety of factors, including but not limited to substrate selection and preparation, compliance with recommended application guidelines, geographic area, exposure conditions and maintenance of the product and finished sign. Sign failures caused by the substrate or improper surface preparations are not the responsibility of ORAFOL. Please refer to the full warranty document available at [www.orafol.com](http://www.orafol.com) for detailed information.

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