

## Description

ORALITE® 5400 Commercial Grade are weatherproof, self-adhesive retroreflective films with a high level of flexibility and an excellent corrosion and solvent resistance. The retroreflective system of the ORALITE® 5400 Commercial Grade consists of catadioptric glass beads which are embedded in a transparent layer of plastic material (classification RA1, design A, former Type I). The smooth surface has a high scratch resistance and a good printability. The minimum reflection data corresponds to the EN 12899-1. The daylight colours correspond to the international norms for reflective materials of this class.

## Front Material

Special cast PVC film

## Release Paper

PE-coated silicone paper, 145g/m<sup>2</sup>.

As the product and batch number are applied to the silicone-coated paper, all production parameters and raw materials can be completely traced back.

## Adhesive

Solvent polyacrylate, permanent.

## Area of Use

ORALITE® 5400 Commercial Grade was especially developed for the manufacture of guidance and information signs as well as for reflective advertising art, which are intended for a short-term outdoor use and which require just a minimum of retroreflection. They are suitable both for digital printing with solvent based inks and for use on cutting plotters and provide good adaptability including to uneven surfaces. The smooth surface shows a high scratch resistance and impact strength, and a very good printability. The colours at daylight comply with the international specifications for reflective materials of this class. The ORALITE® 5400 Commercial Grade has an adhesive with an excellent adhesion on metallic surfaces as aluminium and zinc coated steel plate. When using the ORALITE® 5400 Commercial Grade, the particular national specifications have to be complied with.

## Printing Method

Inkjet printing with solvent based inks, UV- or Latex inks;

Screen printing: The use of ORALITE® 5018 Screen Printing Inks is recommended. A transparent coating is not necessary.

## Recommended Laminates

ORAGUARD® 290F, ORAGUARD® 293F

## Product Data

### Minimum reflection data (EN 12899-1)

Table 1 – Specific coefficient of retroreflection R' in cd/lx/m <sup>2</sup>									
Observation angle	0.2°			0.33°			2°		
Entrance angle	5°	30°	40°	5°	30°	40°	5°	30°	40°
<b>white (010)</b>	70	30	10	50	24	9	5	2.5	1.5
<b>yellow (020)</b>	50	22	7	35	16	6	3	1.5	1
<b>orange (035)</b>	25	10	2,2	20	8	2,2	1,2	0,5	-
<b>red (030)</b>	14,5	6	2	10	4	1,8	1	0,5	0,5
<b>green (060)</b>	9	3,5	1,5	7	3	1,2	0,5	0,3	0,2
<b>blue (050)</b>	4	1,7	0,5	2	1	-	-	-	-

## Physical and Chemical Properties

<b>Thickness*</b> (without protective paper and adhesive)	90 micron
<b>Temperature resistance**</b>	adhered to aluminium, -50°C to +82°C
<b>Adhesive power*</b> (FINAT-TMI after 24h, stainless steel)	15 N/25 mm (film tear)
<b>Shelf life**</b>	2 years
<b>Application Temperature</b>	> +10°C
<b>Service life by specialist application</b> under vertical outdoor exposure (standard central European climate)	4 years (not printed)

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

## 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.

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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