

Description

ORALITE® 5400 Commercial Grade are weatherproof, self-adhesive retroreflective films with 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 corresponds to the international norms for reflective materials of this class.

Front Material

Special cast PVC film

Release Paper

PE-coated silicone paper, 145g/m².

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 ²									
Observation angle	0.2°			0.33°			2°		
Entrance angle	5°	30°	40°	5°	30°	40°	5°	30°	40°
white (010)	70	30	10	50	24	9	5	2.5	1.5
yellow (020)	50	22	7	35	16	6	3	1.5	1
orange (035)	25	10	2,2	20	8	2.2	1.2	0.5	-
red (030)	14,5	6	2	10	4	1.8	1	0,5	0.5
green (060)	9	3,5	1,5	7	3	1.2	0.5	0,3	0.2
blue (050)	4	1,7	0,5	2	1	-	-	-	-

Physical and Chemical Properties

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

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

Note

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 allowed to dry for at least three weeks and to completely cure respectively. The compatibility of selected lacquers and paints should be tested by the user, prior to application of the material. The selfadhesive reflective material can only be used for dry application. Furthermore the application information for both ORALITE® Reflective Films and Digital Printing Materials published by ORAFOL are to be considered.

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.

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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 for detailed information.

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