

## Description

ORALITE® 5430 Construction Grade films are weatherproof, self-adhesive retroreflective films with an excellent corrosion and solvent resistance. The retroreflective system of the ORALITE® 5430 Construction Grade consists of catadioptric glass beads which are embedded in a transparent layer of plastic material (classification R1, RA1 or class 1, type I). The smooth surface has a high scratch resistance and a good printability. The minimum reflection data corresponds to 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, 145 g/m<sup>2</sup>.

Product codes and batch numbers are printed on the back side of the liner. With help of these, all production parameters and raw materials can be traced.

## Adhesive

Solvent polyacrylate with aggressive tack, permanent.

## Area of Use

ORALITE® 5430 Construction Grade were especially developed for the manufacture of traffic control and guidance signs which are made of polyolefinic material, e.g. road works signs, which are intended for a short-term outdoor use. The material has an identification watermark.

ORALITE® 5430 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 to provide increased UV protection. When using non-ORAFOL inks or printers, the application must be tested and approved by the customer. Please confirm the national regulations for use of reflective sheeting.

## Product Data

Minimum coefficients of retroreflection (new condition) according to EN12899-1 and DIN 67520

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°
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
red (030)	14.5	6	2	10	4	1.8	1	0.5	0.5

Colour specification limits at daylight according to DIN 6171

Colour coordinates									
	1		2		3		4		Luminance factor β
	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	≥ 0.35
yellow (020)	0.494	0.505	0.470	0.480	0.513	0.437	0.545	0.455	≥ 0.27
red (030)	0.735	0.265	0.700	0.250	0.607	0.343	0.655	0.345	≥ 0.05

## Physical and Chemical Properties

<b>Thickness*</b> (without protective paper and adhesive)	130 micron
<b>Temperature resistance**</b>	adhered to aluminium, -40° C to +82° C
<b>Adhesive power*</b> (FINAT-TM1 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	4 years (not printed)

\* average    \*\* in original packaging, at 20° C and 50% relative humidity    \*\*\* standard central European climate)

### 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 self-adhesive 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.

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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