

**Description**

ORALITE® retroreflective films series 5821 HIGH INTENSITY FLEET MARKING GRADE are flexible, highly reflective, weatherproof, self-adhesive films with excellent corrosion and solvent resistance. The smooth surface of ORALITE® reflective films series 5821 HIGH INTENSITY FLEET MARKING GRADE allows a very good printability.

The retroreflective system of the ORALITE® reflective films series 5821 HIGH INTENSITY FLEET MARKING GRADE consists of encapsulated catadioptric glass beads which are embedded in a transparent layer of plastic material (corresponds to class RA 2, design B, formerly Type II). The reflective data and colors at daylight comply with the international specifications of this class such as EN 12899-1 (European Regulation), DIN 67520 and DIN 6171 (Germany), BS 873: Part 6 (Great Britain), NFP 98-520 (France), SN 640878 (Switzerland), ASTM D 4956 (US), JIS Z 9117 (Japan).

**Front material**

Acrylic film, flexible

**Adhesive**

Solvent polyacrylate, removable

**Release paper**

Polypropylene film, silicone coated one side, 0,075 mm

**Area of use**

ORALITE® reflective films series 5821 HIGH INTENSITY FLEET MARKING GRADE were especially developed for the application of warning signs on cars and are removable by heat of lacquered surfaces.

The films are made for medium-term outdoor use. The special structure of the cells allows the identification of the film manufacturer. The material is signed with the imprint necessary for warning signs and available both as application kit and rolls.

When using the ORALITE® reflective films series 5821 HIGH INTENSITY FLEET MARKING GRADE, the particular national specifications have to be complied with.

**Technical Data**

**Minimum reflection data** (DIN 67520, Part 1 and Part 2, state as manufactured)

Observation angle Entrance angle		Specific coefficient of retroreflection R' in cd / lx per m²								
		0,2°			0,33°			2°		
		5°	30°	40°	5°	30°	40°	5°	30°	40°
white	010	250	150	110	180	100	95	4	2,4	1,4
yellow	020	170	100	70	122	67	64	3	1,5	1
red	030	45	25	15	25	14	13	0,8	0,4	0,3

The statements in this information sheet are based upon our knowledge and practical experience. This data is intended only as a source of information and is given without guarantee and does not constitute a warranty. Due to the wide variety of possible uses and applications customers should independently determine the suitability of this material for their specific purpose, prior to use.



**Colours** (DIN 5033 Part 3, DIN 5036 Part 1, DIN 6171, state as manufactured)

		Colour coordinates								Luminance factor $\beta$
		1		2		3		4		
		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	$\geq 0,27$
yellow	020	0,494	0,505	0,47	0,48	0,513	0,437	0,545	0,454	$\geq 0,16$
red	030	0,735	0,265	0,7	0,25	0,61	0,34	0,66	0,34	$\geq 0,03$

<b>Thickness*</b> (without protective paper and adhesive)	260 micron
<b>Temperature resistance</b>	adhered to aluminium, -56°C to +82°C (-69°F to 180°F)
<b>Salt-water resistance</b> (DIN 50021)	adhered to aluminium, after 100h at 23°C (74°F) no variation
<b>Resistance to solvents and chemicals</b>	with expert application resistant to most oils, grease, fuels, aliphatic solvents, weak acids, salts and alkalis
<b>Resistance to cleaning agents</b>	adhered to aluminium, 8h in washalcalics (0,5% household-cleaning agents) at room temperature and 65°C, no variation
<b>Adhesive power*</b> (FINAT TM 1, after 24h, stainless steel)	> 15 N/25mm (25mm = 0,98in) (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)	5 years

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

**Attention:**

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 published by ORAFOL is to be considered.

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