ORALITE®
5840 HIGH INTENSITY CONSTRUCTION GRADE

Description

ORALITE® retroreflective films series 5840 HIGH INTENSITY CONSTRUCTION GRADE are highly reflective, weatherproof, self-adhesive films with excellent corrosion and solvent resistance. The smooth surface of ORALITE® reflective films series 5840 HIGH INTENSITY CONSTRUCTION GRADE allows a very good printability. The retroreflective system of the ORALITE® reflective films series 5840 HIGH INTENSITY CONSTRUCTION GRADE consists of encapsulated catadioptric glass beads. 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

PET film

Adhesive

Solvent polyacrylate, permanent

Release paper

Polypropylene film, silicone coated one side, 0,075 mm
As the product and batch number are applied to the silicone-coated liner, all production parameters and raw materials can be completely traced back.

Area of use

ORALITE® reflective films series 5840 HIGH INTENSITY CONSTRUCTION GRADE were especially developed for the manufacture of temporary traffic control and construction area signs, warning and information signs, which are intended for short-term outdoor use (4 years). The special structure of the cells allows the identification of the film manufacturer.
When using the ORALITE® reflective films series 5840 HIGH INTENSITY CONSTRUCTION GRADE, the particular national specifications have to be complied with.

Printing method

The use of ORALITE® - Screen printing ink is recommended. A transparent coating is not necessary.

Laminating films

To produce color laminates the use of ORALITE® 5041 Transparent Film is recommended.

Technical Data

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

		Specific coefficient of retroreflection R' in cd / lx per m²								
Observation angle		0,2°			0,33°			2°		
Entrance angle		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
orange	035	100	60	29	62	40	22	1,5	0,8	0,7

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

		Colour coordinates								Luminance factor ß
		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	>=0,27
yellow	020	0,494	0,505	0,47	0,48	0,513	0,437	0,545	0,454	>=0,16
orange	035	0,61	0,39	0,535	0,375	0,506	0,404	0,57	0,429	>=0,14

Thickness* (without protective paper and adhesive)	250 micron
Temperature resistance	adhered to aluminium, -56°C to +82°C (-69°F to 180°F)
Salt-water resistance (DIN 50021)	adhered to aluminium, after 100h at 23°C (74°F) no variation
Resistance to solvents and chemicals	with expert application resistant to most oils, grease, fuels, aliphatic solvents, weak acids, salts and alkalis
Resistance to cleaning agents	adhered to aluminium, 8h in washalcalics (0,5% household-cleaning agents) at room temperature and 65°C, no variation
Adhesive power* (FINAT TM 1, after 24h, stainless steel)	> 15 N/25m (film tear)
Shelf life**	2 years
Application temperature	> +15°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

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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