

ORALITE® 5830

High Intensity Construction Grade

Technical
Datasheet
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Description

ORALITE® 5830 High Intensity Construction Grade is a flexible, highly reflective, weatherproof, self-adhesive film with excellent corrosion and solvent resistance. The smooth surface of ORALITE® 5830 High Intensity Construction Grade allows very good printability. The retroreflective system of the ORALITE® 5830 High Intensity Construction Grade consists of encapsulated catadioptric glass beads (corresponds to class RA 2, design B, formerly Type II). ORALITE® 5830 High Intensity Construction Grade contains an identification water mark. The reflective data and colours 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).

Release Paper

Polypropylene film, silicone coated one side, 3 mil, with identification watermark

Adhesive

Solvent polyacrylate, permanent, with an aggressive tack

Area of Use

ORALITE® 5830 High Intensity Construction Grade materials are specially developed for the manufacture of medium-term outdoor traffic control and guidance signs, warning, construction and information signs. Because of Series 5830 adhesive properties it is perfect for high energy plastics like polyolefinic substrates. The special structure of the cells allow the identification of the film manufacturer. Please comply with national specifications when using ORALITE® 5830 High Intensity Construction Grade Film.

Technical Data

Thickness* (without protective paper and adhesive)	8.25-mil
Temperature resistance	Adhered to aluminum, -68°F to +180°F
Resistance to cleaning agents	Adhered to aluminum, 8h in solution (0.5% household cleaning agents) at room temperature and 149°F, no variation
Adhesive power* (FINAT-TM 1 after 24h, stainless steel)	3.42 lb/in (film tear)
Shelf life**	2 years
Application temperature	>50°F
Minimum Life Expectancy*** (based on accepted application procedures on vertical surfaces)	5 years (unprinted)
Available Lengths	150' (50-yard)
Available Widths (in inches)	24, 30, 36, 48
Print Compatibility	Screen Printing: ORALITE® 5018 Screen Printing Ink is recommended

* average ** in original packaging, at 68° F and 50% relative humidity

*** standard central European climate

Product Data

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

		Minimum coefficient of retroreflection (R) cd/fc/ft ² (cd • lx ⁻¹ • m ⁻²)								
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



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Colors (DIN 5033 Part 3, DIN 6171, state as manufactured)

Table 2- Color Coordinates										
Colors		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	0.454	≥ 0.27

Note:

All ORALITE® products are manufactured within an ISO 9001:2008 controlled manufacturing environment and batch traceability is possible on the basis of the roll number.

IMPORTANT NOTICE

When using ORALITE® sheeting, please comply with relevant national specifications. ORAFOL recommends obtaining 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.

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. The low tensile strength of the material can make the removability of the reflective film more difficult. Please review applicable application information published by ORAFOL.

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.orafolamericas.com for detailed information.

WARNING: This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

ORALITE® is a trademark of ORAFOL Europe GmbH.



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