

# ORALITE® 5851

## High Intensity Container Marking Grade

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### Description

ORALITE® 5851 High Intensity Container Marking Grade is a flexible, highly reflective, weatherproof, self-adhesive film with excellent corrosion and solvent resistance. The retroreflective system of the ORALITE® 5851 High Intensity Container 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 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

### Adhesive

Solvent polyacrylate, permanent

### Area of Use

ORALITE® 5851 High Intensity Container Marking Grade is developed specially for permanent and exchangeable containers on public roads. The films are equipped with an adhesive that ensures permanent adhesion to painted surfaces. Depending on the stress the film is subjected to, full functionality is guaranteed for a period of up to five years. The special structure of the cells allows the identification of the film manufacturer. The material is signed with the imprint necessary for container warning signs and available as sign faces. When using the ORALITE® 5851 High Intensity Container Marking Grade, the particular national specifications have to be complied with.

### Technica Data

<b>Thickness*</b> (without protective paper and adhesive)	8.25-mil
<b>Temperature resistance</b>	Adhered to aluminum, -68°F to +180°F
<b>Sea-water resistance (DIN 50021)</b>	Adhered to aluminum, after 100h at 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 aluminum, 8h in solution (0.5% household cleaning agents) at room temperature and 149°F, no variation
<b>Adhesive power*</b> (FINAT-TM 1 after 24h, stainless steel)	3.42 lb/in (film tear)
<b>Shelf life**</b>	2 years
<b>Application temperature</b>	>50°F
<b>Minimum Life Expectancy***</b> (based on accepted application procedures on vertical surfaces)	5 years
<b>Available Sizes</b>	5.5" x 28"

\* 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)

Observation Angle	Minimum coefficient of retroreflection (R) cd/lc/ft <sup>2</sup> (cd · lx <sup>-1</sup> · m <sup>-2</sup> )								
	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
red 030	45	25	15	25	14	13	0.8	0.4	0.3



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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 $\beta$
		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	$\geq 0.35$
Yellow	020	0.494	0.505	0.470	0.480	0.513	0.437	0.545	0.454	$\geq 0.27$
Red	030	0.735	0.265	0.700	0.250	0.610	0.340	0.660	0.340	$\geq 0.05$

**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](http://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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