

### 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).

### Front Material

Acrylic film, flexible

### Release Paper

Polypropylene film, silicone coated one side, 0.075 mm

### Adhesive

Solvent polyacrylate, permanent

### Area of Use

ORALITE® 5851 High Intensity Container Marking Grade was developed especially 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.

### Product Data

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

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°
<b>white (010)</b>	250	150	110	180	100	95	4	2.4	1.4
<b>yellow (020)</b>	170	100	70	122	67	64	3	1.5	1
<b>red (030)</b>	45	25	15	25	14	13	0.8	0.4	0.3

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

Colour Coordinates									
Colours	1		2		3		4		Luminance factor $\beta$
	X	y	X	y	X	y	X	y	
<b>white (010)</b>	0.305	0.315	0.335	0.345	0.325	0.355	0.295	0.325	$\geq 0.27$
<b>yellow (020)</b>	0.494	0.505	0.470	0.480	0.513	0.437	0.545	0.454	$\geq 0.16$
<b>red (030)</b>	0.735	0.265	0.700	0.250	0.610	0.340	0.660	0.340	$\geq 0.03$

### Physical and Chemical Properties

<b>Thickness*</b> (without protective paper and adhesive)	210 micron
<b>Temperature resistance**</b>	adhered to aluminium, -56° C to +82° C (-68° F to 180° F)
<b>Salt-water resistance (DIN 50021)</b>	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 wash-alkalica (0,5% household cleaning agents) at room temperature and 65° C, no variation
<b>Adhesive power*</b> (FINAT-TMI after 24h, stainless steel)	15 N/25 mm (25 mm = 0.98 in) (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 \*\* standard central European climate \*\*\* in original packaging, at 20°C and 50% relative humidity

### 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.

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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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