ORALITE® 5831

High Intensity Construction Grade

ORALITE® 5831 High Intensity Construction Grade is a highly reflective and flexible reflective film specially developed for traffic signs and guidance systems, especially when applied on polyolefinic substrates.

Reflective Properties

Reflective Technology: Glass bead, Reflectivity classes: RA2, Reflective film structure: B, Reflection norm: ORALITE® 5831 - Tabelle 1 (DIN 67520), ORALITE® 5831 - Tabelle 2 (DIN 6171-1)

Areas of Application

- Containers & refuse containers
- Construction sites
- Industry
- Traffic & transportation

Colours

ORALITE® 5831 is available in the following colours: White / Red (F010), Yellow / Red (F020), Yellow / Black (F020)

Total thickness

- 0.21 mm (Average value, without protective liner)

Front material

Acrylic film

Liner

PE paper siliconised on one side, 0.075 mm

Adhesive

Solvent-polyacrylate, permanent (with aggressive tack)

Technical properties

RESISTANCE		
Resistance to cleaning agents	No change	adhered on aluminium | 8 h in detergent solution (0.5 % household cleaner) at room temperature and 65 °C

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Durability	5 Year(s)	with professional processing, with vertical outdoor weathering, central European normal climate
Shelf Life	1 Year(s)	in original packaging, at 20 °C and 50 % relative humidity
Resistance to solvents and chemicals	Mineral oils, Greases, Fuels, Aliphatic solvents, Weak acids, Salts and alkalis	with professional bonding
Seawater resistance	Tested	adhered on aluminium | DIN 50021, after 100 h/ 23 °C no change
Temperature resistance	Minimum temperature -40 °C Maximum temperature 82 °C	adhered on aluminium, central European normal climate

ADHESIVE PROPERTIES

Adhesive power	15 N/25 mm	after 24 h, on stainless steel | Average value, FINAT TM 1

PROCESSING

Suitable substrate	Polyolefin substrates	
Application temperature	Minimum temperature 10 °C	

Table 1 - Specific coefficient of retroreflection R' in cd / (lx m²) [Minimum values] (New condition; DIN 67520)

Observation Angle		0.20°			0.33°			2.00°		
Entrance angle		5°	30°	40°	5°	30°	40°	5°	30°	40°
White	(010)	45	25	15	25	14	13	1	0.4	0.3
Yellow	(020)	170	100	70	120	70	60	3	1.5	1
Red	(030)	45	25	15	25	14	13	1	0.4	0.3

Table 2 - Chromaticity coordinates (New condition; DIN 6171-1)

Colours		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	≥ 0.27

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Colours		1		2		3		4		Luminance factor β
		x	y	x	y	x	y	x	y	
Yellow	**(020)**	0.494	0.506	0.470	0.480	0.513	0.437	0.545	0.455	≥ 0.16
Red	**(030)**	0.735	0.265	0.700	0.250	0.610	0.340	0.660	0.340	≥ 0.03

IMPORTANT NOTES

Relevant national specifications have to be observed when using films of the ORALITE® series. ORAFOL recommends that you obtain the current specifications from your local authority and ensure that the product complies with them. For further information, please contact ORAFOL directly. All ORALITE® products are subject to thorough quality control during the entire manufacturing process. It is ensured that they are of merchantable quality and free from manufacturing defects. The information published on the ORALITE® products is based on research results which the company considers to be reliable, but which do not constitute a guarantee. In view of the wide range of applications of ORALITE® products and the continuous development of new applications, the buyer should carefully weigh up the suitability and performance of the product for the respective purpose and they bear all risks in connection with such use. All specifications may be changed without advance notice. Any warranty is excluded for applications which are not listed in the Technical Data sheet or which are not performed in accordance with the processing guidelines set out by ORAFOL. The durability of the shields depends on a multitude of factors, such as for example the selection and preparation of the substrate, compliance with the recommended processing guidelines, the geographical application area, the weather conditions as well as the maintenance of the product and the finished shield. ORAFOL does not accept any liability for defects which can be traced back to an unsuitable substrate or inadequate surface preparation. You can find comprehensive information in the warranty document under www.orafol.com. ORALITE® is a trademark of ORAFOL Europe GmbH.

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