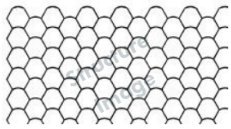
ORALITE® 5931

Prismatic Construction Grade

Reflective Properties

Cell structure:



Reflective Technology: Prismatic , Reflectivity classes: RA2, Reflective film structure: C, Reflection norm: ORALITE® 5931 - Tabelle 1 (DIN 67520:2008-11 RA2; Aufbau C), ORALITE® 5931 - Tabelle 2 (ASTM D4956 Typ IV), ORALITE® 5931 - Tabelle 3 (DIN 6171: 2011-11), ORALITE® 5931 - Tabelle 4 (ASTM D4956 (Typ IV))

Areas of Application

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

Colours

ORALITE® 5931 is available in the following colours: White / Red (F010), Yellow / Red (F020), Yellow-Green fluorescent / Red (F029), Orange fluorescent / Black (F038)

Total thickness

- 0.48 mm (Average value, without protective liner and adhesive)

Front material

Polymer PVC film

Liner

One-sided silicon-coated PP film, 0.075 mm

Adhesive

Solvent-polyacrylate, permanent, Transparent

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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
Durability	5 Year(s)	unprinted, 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
Temperature resistance	Minimum temperature -40 °C Maximum temperature 82 °C	adhered on aluminium

ADHESIVE PROPERTIES

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

PROCESSING

Suitable substrate	Polyolefin substrates, Aluminium, Galvanised sheet steel	

Table 1 - Specific coefficient of retroreflection R' in cd / (lx m²) (New condition; DIN 67520: 2008-11 RA2; Design C)

Observation Angle	0.20°			0.33°			2.00°		
Entrance angle	**5°**	**30°**	**40°**	**5°**	**30°**	**40°**	**5°**	**30°**	**40°**
White	250	150	110	180	100	95	5	2.5	1.5
Yellow	170	100	70	122	70	64	3	1.5	1
Orange	100	60	29	65	40	20	1.5	1	>0
Red	45	25	15	25	14	13	1	0.4	0.3

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Table 2 - Specific coefficient of retroreflection R' in cd / (lx m²) (New condition; ASTM D4956 (type IV))

Observation Angle	0.10°		0.20°		0.50°	
Entrance angle	**-4°**	**30°**	**-4°**	**30°**	**-4°**	**30°**
White	500	240	360	170	150	72
Yellow	380	175	270	135	110	54
Orange	200	94	145	68	60	28
Red	90	42	65	30	27	13
fl. yellow-green	400	185	290	135	120	55
fl. yellow	300	140	220	100	90	40
fl. Orange	150	70	105	50	45	22

Table 3 - Chromaticity coordinates (Colour specification limits at daylight; New condition; DIN 6171: 2011-11)

Colours	1		2		3		4		Luminance factor β
	x	y	x	y	x	y	x	y	
White	0.305	0.315	0.335	0.345	0.325	0.355	0.295	0.325	□ 0.27
Yellow	0.494	0.506	0.470	0.480	0.513	0.437	0.545	0.455	□ 0.16
fl. yellow-green	0.373	0.625	0.358	0.549	0.427	0.483	0.465	0.535	□ 0.60
fl. yellow	0.545	0.455	0.487	0.423	0.427	0.483	0.465	0.535	□ 0.45
fl. Orange	0.570	0.430	0.506	0.404	0.569	0.341	0.655	0.345	□ 0.30
Orange	0.631	0.369	0.552	0.359	0.506	0.404	0.570	0.430	□ 0.12
Red	0.735	0.265	0.700	0.250	0.607	0.343	0.655	0.345	□ 0.03

Table 4 - Chromaticity coordinates (Colour specification limits at daylight; New condition; ASTM D4956 (type IV))

Colours	1		2		3		4		Luminance factor (Y %)
	x	y	x	y	x	y	x	y	

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White	0.303	0.300	0.368	0.366	0.340	0.393	0.274	0.329	□ 27
Yellow	0.498	0.412	0.557	0.442	0.479	0.520	0.438	0.472	15 □ Y □ 45
Orange	0.558	0.352	0.636	0.364	0.570	0.429	0.506	0.404	10 □ Y □ 30
Red	0.648	0.351	0.735	0.265	0.629	0.281	0.565	0.346	2.5 □ Y □ 15
fl. yellow-green	0.387	0.610	0.369	0.546	0.428	0.496	0.460	0.540	□ 60
fl. yellow	0.479	0.520	0.446	0.483	0.512	0.421	0.557	0.422	□ 40
fl. Orange	0.583	0.416	0.535	0.400	0.595	0.351	0.645	0.355	□ 20

PRODUCT NOTE

The substrate to be bonded must be free of dust, grease or other contamination, which can affect the adhesive strength of the material. Re-coatings must be completely cured. Application tests with the planned coatings have to be performed in advance to determine the compatibility. For other application areas the user is responsible for testing and assessing whether the product is suitable and whether risks may arise from its use. The respective national provisions have to be considered for the application. ORALITE® 5931 Prismatic Construction Grade can be printed by means of digital or screen printing as well as with overlay films. We recommend ORALITE® 5018 as the screen printing ink. A clear coating is not required for this combination of ink and film. For detailed information please use the processing instructions published by ORAFOL No. 4.3. or contact the responsible employee of the ORAFOL Reflective Solutions Division. Remark: All ORALITE® products have been manufactured in a production process certified in accordance with ISO 9001:2015. The machine direction (0°) cross direction (90°) ORALITE® 5931 Prismatic Construction Grade Technical Data Sheet 2020/4 page 2 of 4 ORAFOL Europe GmbH - Orafolstrasse 1 – D 16515 Oranienburg, Deutschland reflective. Solutions@orafol.de - www.orafol.de. The batch can be traced at any time by means of the roll number.

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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