ORALITE® 6900

Brilliant Grade - Vehicle

Reflective Properties

Cell structure:



Reflective Technology: Prismatic , Reflection norm: ORALITE® 6900 - Tabelle 1 (Spezifische Rückstrahlwerte), ORALITE® 6900 - Tabelle 2 (Farbkoordinaten), ORALITE® 6900 - Tabelle 3 (Farbkoordinaten, fluoreszierende Farben)

Areas of Application

- Emergency vehicles & vehicles with special rights
- Safety & emergency services
- Traffic & transportation

Colours

ORALITE® 6900 is available in the following colours: White (F010), Red (F030), Green (F060), Royal blue (F049), Yellow-Green fluorescent (F029), Orange fluorescent (F038)

Total thickness

- 0.23 mm (Standard colours, average value, without protective liner and adhesive)
- 0.28 mm (fluorescent colours, average value, without protective paper and adhesive)

Front material

Acrylic film

Liner

One-sided silicon-coated PP film, 0.075 mm

Adhesive

Solvent-polyacrylate, White

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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	10 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
Temperature resistance	Minimum temperature -56 °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	Aluminium, Galvanised sheet steel, Metals, painted metal surfaces	
Application temperature	Minimum temperature 15 °C	

Table 1 - Specific coefficient of retroreflection R' in cd / (lx m²) (New condition)

Observation Angle	0.20°			0.33°			0.50°			1.00°		
Entrance angle	5°	30°	45°	5°	30°	45°	5°	30°	45°	5°	30°	45°
White (010)	350	170	40	300	165	30	110	60	20	35	20	3
Red (030)	60	25	7	60	33	5	20	10	3.6	7	4	1
Green (060)	35	18	4	30	17	3	11	6	2	3.5	2	0.5
Royal blue (049)	25	12	3	19	11	2	7	3	1.3	2.5	1.5	0.5

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Observation Angle	0.20°			0.33°			0.50°			1.00°		
Entrance angle	**5°**	**30°**	**45°**	**5°**	**30°**	**45°**	**5°**	**30°**	**45°**	**5°**	**30°**	**45°**
fl. yellow-(029 green)	300	150	33	240	130	24	50	20	9	28	16	2.5
fl. (038 Orange)	160	80	18	80	50	20	45	20	8	8	4	2

Table 2 - Chromaticity coordinates (Colour specification limits at daylight; New condition)

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
Red (030)	0.735	0.265	0.700	0.250	0.610	0.340	0.660	0.340	□ 0.03
Green (060)	0.110	0.415	0.170	0.415	0.170	0.500	0.110	0.500	□ 0.03
Royal blue (049)	0.130	0.090	0.160	0.090	0.160	0.140	0.130	0.140	□ 0.01

Table 3 - Chromaticity coordinates, Fluorescent colour (Colour specification limits at daylight; New condition)

Colours	1		2		3		4		Luminance factor β	Fluo. Luminance factor βF
	x	y	x	y	x	y	x	y		
fl. yellow-(029 green)	0.373	0.625	0.358	0.549	0.427	0.483	0.465	0.535	□ 0.60	□ 0.35
fl. (038 Orange)	0.506	0.404	0.570	0.429	0.655	0.345	0.560	0.340	□ 0.15	□ 0.18

PRODUCT NOTE

The substrate to be bonded must be free of dust, grease or other contamination, which can affect the adhesiveness 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 further areas of application the user has to test and evaluate in advance whether the product is suitable. The user bears the risks arising in this context. For detailed information on the processing, including edge sealing, please refer to the processing information or contact the ORAFOL Reflective Solutions Division directly. ORALITE® 6900 Brilliant Grade develops the optimum performance level with an alignment of 0° or 90°. If separate individual cuts are joined together or positioned next to each other, it is recommended that they be aligned identically.

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IMPORTANT NOTES

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. For detailed information, please refer to the warranty document published by ORAFOL. Observe the relevant national specifications when using the ORALITE® 6900 films. 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 the products 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, it is up to the buyer to carefully check the suitability and performance of the product for the respective purpose. The buyer bears all risks which result from the use of these products. All specifications are subject to change. ORALITE® is a registered trademark of ORAFOL Europe GmbH.

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