ORALITE® 6910T

Brilliant Grade Translucent

ORALITE® 6910T Brilliant Grade Translucent is a prismatic, reflective, translucent film specially developed for the production of internally illuminated signs, traffic signs, and markings. It ensures excellent light distribution and high diffuse light transmission, ideal for applications such as runway markings at airports. The film has a surface of UV-stabilized acrylic film and offers high luminance, excellent reflection properties, and is particularly resistant in extreme weather conditions.

Reflective Properties

Cell structure:



Reflective Technology: Prismatic , Reflectivity classes: RA3B, Reflective film structure: C, Reflection norm: ORALITE® 6910T - Tabelle 1 (DIN 67520:2013-10 RA3B; Aufbau C), ORALITE® 6910T - Tabelle 2 (DIN 67520:2013-10 RA3B; Aufbau C), ORALITE® 6910T - Tabelle 3 (Transmissionsgrad), ORALITE® 6910T - Tabelle 4 (DIN 6171-1:2013-10), ORALITE® 6910T - Tabelle 5 (DIN 6171-1:2013-10)

Areas of Application

- Traffic signs
- Construction sites
- Advertising & signage
- Traffic & transportation

Colours

ORALITE® 6910T is available in the following colours: White (F010), Yellow (F020), Yellow fluorescent (F037), Yellow-Green fluorescent (F029)

Total thickness

- 0.345 mm (Standard colours, average value, without protective liner)
- 0.385 mm (fluorescent colours, average value, without protective paper)

Front material

Acrylic film

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Liner

One-sided silicon-coated PP film, 0.075 mm

Adhesive

Solvent-polyacrylate, permanent, Transparent

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	with professional processing, with vertical outdoor weathering, central European normal climate	
	12	unprinted, standard colours
	10	unprinted, for y Yellow-Green fluorescent and Yellow fluorescent
	3 Year(s)	unprinted, for Orange fluorescent
Shelf Life	1 Year(s)	in original packaging, at 20 °C and 50 % relative humidity
Temperature resistance	Minimum temperature -40 °C Maximum temperature 80 °C	adhered on aluminium

ADHESIVE PROPERTIES

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

PROCESSING

Recommended printing procedure	Screen printing, Digital print with UV-curing inks	
Application temperature	Minimum temperature 10 °C	

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Table 1 - Specific coefficient of retroreflection R' in cd / (lx m²) (New condition; DIN 67520: 2013-10 RA3B; Design C)

Observation Angle	0.33°				1.00°				1.50°			
Entrance angle	5°	20°	30°	40°	5°	20°	30°	40°	5°	20°	30°	40°
White (010)	300	240	165	30	35	30	20	3.5	15	13	9	1.5
Yellow (020)	195	155	110	20	23	20	13	2	10	8	6	1

Table 2 - Specific coefficient of retroreflection, Fluorescent colour R' in cd / (lx m²) (New condition; DIN 67520: 2013-10 RA3B; Design C)

Observation Angle	0.33°				1.00°				1.50°			
Entrance angle	5°	20°	30°	40°	5°	20°	30°	40°	5°	20°	30°	40°
fl. yellow-green (029)	240	190	130	24	28	24	16	2.5	12	10	7	1
fl. yellow (037)	195	155	110	20	23	20	13	2	10	8	6	1

Table 3 - Transmittance in % (New condition)

Colours	White	Yellow	fl. yellow-green	fl. yellow
Transmittance	35	25	45	30

Table 4 - Chromaticity coordinates (Colour specification limits at daylight; New condition, DIN 6171-1: 2013-10)

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
Yellow (020)	0.494	0.506	0.470	0.480	0.513	0.437	0.545	0.455	> 0.16

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Table 5 - Chromaticity coordinates, Fluorescent colour (Colour specification limits at daylight; New condition, DIN 6171-1: 2013-10)

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. yellow (037)	0.545	0.455	0.487	0.423	0.427	0.483	0.465	0.535	□ 0.45	□ 0.25

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 other application areas the user is responsible for testing and assessing whether the product is suitable and whether risks may arise from its use. ORALITE® 6910 white can be printed by means of digital or screen printing as well as laminated with overlay films The printed or laminated material still fulfils the specifications for reflectance values of this colour if the ORAFOL processing instructions are observed. The recommended overlay films are ORALITE® 5061 Transparent Film, ORALITE® 5090 Anti-Dew Film and ORALITE® 5095 Anti-Graffiti Film. We recommend ORALITE® 5018 as the screen printing ink. Clear varnish is not required. The material can also be printed with the ORALITE® UV Digital Sign Printer and the specifically developed UV digital inks ORALITE® 5019. For long-term, vertical applications outdoors, it is recommended to use the printed material in combination with ORALITE® 5061 Transparent Film. For detailed information please use the processing instructions published by ORAFOL No. 4.4 or contact the responsible employee of the ORAFOL Reflective Solutions Division.

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 films ORALITE® 6910. 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. ORALITE® is a trademark of ORAFOL Europe GmbH.

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