

Description

4.5-mil, engineer grade, catadioptric glass bead reflective film. Available in white, yellow, red, orange, blue, green and brown.

Release Paper

PE-coated silicone paper, 89#

Adhesive

Solvent polyacrylate, permanent

Area of Use

ORALITE® 5510 Engineer Grade films are especially developed for the manufacture of long-term, outdoor, traffic control and guidance signs, warning signs and information signs as well as for reflective lettering, numbers and symbols. Series 5510 has excellent corrosion and solvent resistance. ORALITE® 5510 Engineer Grade has an identification watermark. The reflective data and colors, at daylight, comply with the ASTM D4956.

Technical Data

Thickness* (without protective paper and adhesive)	4.5-mil
Temperature resistance	Adhered to aluminum, -68°F to +180°F
Saltwater resistance (DIN 50021)	Adhered to aluminum, after 100 h/ 73°F no variation
Resistance to solvents and chemicals	With expert application resistant to most oils, grease, fuels, aliphatic solvents, weak acids, salts and alkalis Adhered to aluminum, 8h in washcalics (0.5% household cleaning agents) at room temperature and 154°F, no variation
Resistance to cleaning agents	Adhered to aluminum, 8h in suds (0.5% household cleaning agents) at room temperature and 149°F, no variation
Adhesive power* (FINAT-TM 1 after 24h, stainless steel)	3.42 lb/in (film tear)
Shelf life**	2 years
Minimum Life Expectancy*** (based on accepted application procedures on vertical surfaces)	7 years (unprinted)
Available Lengths	150' (50-yard)
Available Widths (in inches)	24, 30, 36, 48
Recommended Overlay	ORALITE® 5051 Transparent Film
Print Compatibility	Screen Printing: ORALITE® 5018 Screen Printing Ink is recommended

* average ** in original packaging, at 68° F and 50% relative humidity

*** standard central European climate

Product Data

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

Observation Angle	Minimum coefficient of retroreflection (R) cd/fc/ft ² (cd · lx ⁻¹ · m ⁻²)								
	0.2°			0.33°			2°		
Entrance Angle	5°	30°	40°	5°	30°	40°	5°	30°	40°
white 010	80	30	10	60	24	9	5	2.5	1.5
yellow 020	50	22	7	35	16	6	3	1.5	1
orange 035	25	10	2.2	20	8	2.2	1.2	0.5	-
red 030	14.5	6	2	10	4	1.8	1	0.5	0.5
green 060	8	3.5	1.5	7	3	1.2	0.5	0.3	0.2
blue 050	4	1.7	0.5	2	1	-	-	-	-
brown 080	1	0.3	-	0.6	0.2	-	-	-	-



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Colors (DIN 5033 Part 3, DIN 5036 Part 1, DIN 61871, state as manufactured)

Table 2- Color Coordinates										
Colors		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	≥ 0.35
Yellow	020	0.494	0.505	0.470	0.480	0.513	0.437	0.545	0.454	≥ 0.27
Orange	035	0.610	0.390	0.535	0.375	0.506	0.404	0.570	0.429	≥ 0.17
Red	030	0.735	0.265	0.700	0.250	0.610	0.340	0.660	0.340	≥ 0.05
Green	060	0.110	0.415	0.170	0.415	0.170	0.500	0.110	0.500	≥ 0.04
Blue	050	0.130	0.090	0.160	0.090	0.160	0.140	0.130	0.140	≥ 0.01
Brown	080	0.445	0.397	0.523	0.429	0.479	0.373	0.558	0.394	0.03 - 0.09

Note:

All ORALITE® products are manufactured within an ISO 9001:2008 controlled manufacturing environment and batch traceability is possible on the basis of the roll number.

IMPORTANT NOTICE

When using ORALITE® sheeting, please comply with relevant national specifications. ORAFOL recommends obtaining the current requirements from your local authority and ensure product conformance with such requirements. Please contact ORAFOL for further information.

All ORALITE® products are subject to careful quality control throughout the manufacturing process and are warranted to be of merchantable quality and free from manufacturing defects. Published information concerning ORALITE® products is based upon research which the Company believes to be reliable, although, such information does not constitute a warranty. Because of the variety of uses of ORALITE® products and the continuing development of new applications, the purchaser should carefully consider the suitability and performance of the product for each intended use, and the purchaser shall assume all risks regarding such use. All specifications are subject to change without prior notice.

Surfaces to which the material will be applied must be thoroughly cleaned from dust, grease or any contamination which could affect the adhesion of the material. Freshly lacquered or painted surfaces should be allowed to dry for at least three weeks and to completely cure respectively. The compatibility of selected lacquers and paints should be tested by the user, prior to application of the material. The self-adhesive reflective material can only be used for dry application. The low tensile strength of the material can make the removability of the reflective film more difficult. Please review applicable application information published by ORAFOL.

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.orafolamericas.com for detailed information.

WARNING: This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

ORALITE® is a trademark of ORAFOL Europe GmbH.



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