

## Description

4.25-mil, engineer grade, alkyd resin film consisting of catadioptric glass beads embedded in a transparent layer of plastic material. Available in white, yellow, red, orange, blue, green, brown and black

## Release Liner

89# PE-coated silicone paper

## Adhesive

Solvent polyacrylate, permanent

## Area of Use

ORALITE® 5500 Engineer Grade is perfect for long-term, outdoor, reflective traffic control and lettering applications. Series 5500 is corrosion and solvent resistant. The colors comply with the daytime requirements of ASTM D4956-11a as shown in Table 1 when tested in accordance with ASTM practices E308 and E1164 and test methods E1347 and E1349.

## Technical Data

<b>Thickness*</b> (without liner and adhesive)	4.25-mil
<b>Temperature resistance</b>	Adhered to aluminum, -68°F to +179°F
<b>Salt-water resistance (DIN 50021)</b>	Adhered to aluminum, after 100h at 73°F, no variation
<b>Resistance to solvents and chemicals</b>	With expert application resistant to most oils, grease, fuels, aliphatic solvents, weak acids, salts and alkalis
<b>Resistance to cleaning agents</b>	Adhered to aluminum, 8h in suds (0.5% household cleaning agents) at room temperature and 149°F, no variation
<b>Adhesive power*</b> (FINAT-TM 1 after 24h, stainless steel)	3.42 lb.in film tear
<b>Shelf life**</b>	2 years
<b>Application temperature</b>	> +50°F
<b>Minimum Life Expectancy***</b> (based on accepted application procedures on vertical surfaces)	7 years (unprinted)
<b>Available Lengths</b>	150' (50-yard) and 30' (10-yard)
<b>Available Widths</b> (in inches)	15 (punched), 24, 30, 48
<b>Recommended Overlay Film</b>	ORALITE® 5051
<b>Print Compatibility</b>	Thermal printing, 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

**Table 1 – Daytime Chromaticity Coordinates\* (ASTM D4956-11a)**

Colors	1		2		3		4		Luminance Factor [Y]
	X	y	X	y	X	y	X	y	
<b>White (010)</b>	0.303	0.300	0.368	0.366	0.340	0.393	0.274	0.329	≥ 27
<b>Yellow (020)</b>	0.498	0.412	0.557	0.442	0.479	0.520	0.438	0.472	15 ≥ Y ≥ 45
<b>Red (030)</b>	0.648	0.351	0.735	0.265	0.629	0.281	0.565	0.346	2.5 ≥ Y ≥ 15
<b>Orange (035)</b>	0.558	0.352	0.636	0.364	0.570	0.429	0.506	0.404	10 ≥ Y ≥ 30
<b>Blue (050)</b>	0.140	0.035	0.244	0.210	0.190	0.255	0.065	0.216	1 ≥ Y ≥ 10
<b>Green (060)</b>	0.026	0.399	0.166	0.364	0.286	0.446	0.207	0.771	3 ≥ Y ≥ 12
<b>Brown (080)</b>	0.430	0.340	0.610	0.390	0.550	0.450	0.430	0.390	1 ≥ Y ≥ 9

\* The four pairs of chromaticity coordinates determine the acceptable chromaticity on the CIE diagram. 1931 Standard Colorimetric System measured with CIE Standard Illuminant D<sub>65</sub>



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**Table 2 – Coefficient of Retroreflection (cd/lux/m<sup>2</sup>) (ASTM D4956-11a Type I sheeting)**

Observation angle	0.2°		0.5°	
	-4°	30°	-4°	30°
<b>White (010)</b>	70	30	30	15
<b>Yellow (020)</b>	50	22	25	13
<b>Red (030)</b>	14	6	7.5	3
<b>Orange (035)</b>	25	7	13	4
<b>Blue (050)</b>	4	1.7	2	0.8
<b>Green (060)</b>	9	3.5	4.5	2.2
<b>Brown (080)</b>	1	0.3	0.3	0.2

**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](http://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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