

Description

ORALITE® V82 Conspicuity Sheeting is a Type V microprismatic retroreflective sheeting. The sheeting is designed for rugged outdoor use on the sides and rear of trucks, trailers, school buses, farm equipment, automobiles and all types of mobile and industrial equipment.

Product Construction

The sheeting is composed of cube corner (microprism) retroreflective elements integrally bonded to a flexible, smooth-surfaced, tough and weather-resistant UV stabilized polymeric film. The prism surfaces are coated with a vacuum deposition of aluminum to provide a mirror surface to the prism facets. The resulting tape is not more than 0.008" inch thick and comes with an aggressive high-tack pressure sensitive adhesive.

Reflectivity

ORALITE® V82 Conspicuity Sheeting shall comply with the Type V requirements in ASTM D4956 and meet or exceed the minimum coefficient of retroreflection shown in Table 1. The sheeting shall be measured in accordance with ASTM E810. Rotation angles of 0° and 90° are measured and averaged.

Color

ORALITE® V82 Conspicuity Sheeting is available in white, yellow, orange, red, green, and blue. The colors conform to the requirements in Table 2 when tested in accordance with ASTM practices E308 and E1164 and standards E1347 and E1349. The measured values are the average of eight readings. The test sample is rotated 45° about its own axis after each reading.

Adhesive

The adhesive is protected by a release liner which shall be removed by peeling, without soaking in water or other solvents. The adhesive produces such a bond that a 1" (50 mm) strip shall support a 1 3/4 pound (0.79 kg) weight for 5 minutes without the strip peeling for a distance of more than 2" (50 mm) when applied to a smooth aluminum surface as specified in the ASTM D4956, section 7.5 adhesion test.

Impact Resistance

Following application to a smooth surface aluminum rectangle, 0.020" by 3" by 6", the specimen is conditioned for 24 hours at 72°F and 50% relative humidity. The sheeting shall show no cracking when the face of the panel is subjected to an impact of a two pound weight with a 5/8" rounded tip dropped from a 100 in/lb setting on a Gardner variable impact tester, IG-1120.

Flexibility

The sheeting is conditioned for 24 hours at 72°F and 50% relative humidity. The release liner is removed and the sheeting is sufficiently flexible to show no cracking when bent in one second's time around a 1/8" diameter mandrel with the adhesive contacting the mandrel.

Solvent Resistance

ORALITE® V82 Conspicuity Sheeting meets the requirements of LS-300C solvent resistance, section 3.6.7, when tested as specified in Table VI, test method 4.4.6.

Specular Gloss

The sheeting shall have a specular gloss of not less than 40 when tested in accordance with ASTM method D523 at an angle of 85°.

Shrinkage

A 9" x 9" specimen of the sheeting with liner is conditioned a minimum of one hour at 72°F and 50% relative humidity. The liner is then removed and the specimen is placed on a flat surface with the adhesive side up. Ten minutes after the liner is removed and again after 24 hours, the specimen is measured to determine the amount of dimensional change. The specimen will not shrink in any dimension more than 1/32" in 10 minutes and 1/8" in 24 hours.

Application Instructions

Material must be applied when the air and surface temperature is 65°F or above. Use a clean towel and Isopropyl alcohol, or similar, to wipe the surface before application. If any air bubbles are trapped, use a pin to puncture the bubble and a squeegee to push the air towards the pin hole.

Warranty

ORALITE® V82 Conspicuity Sheeting has a 10 year warranty. Please contact ORAFOL Americas for details.



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Table 1, Coefficient of Retroreflection* (R_A)

Observation Angle	Entrance Angle	White	Yellow	Orange	Red	Green	Blue
0.20°	-4°	700	470	280	120	120	56
	30°	400	270	160	72	72	32
0.50°	-4°	160	110	64	28	28	13
	30°	75	51	30	15	13	6

*Candelas/Lux/Square Meter

ORALITE® V82 Conspicuity Sheeting fully meets or exceeds the requirements of ASTM D4956 Type V sheeting.

Table 2, Color Specification Limits*

Color	Chromaticity Coordinates*								Luminance Factor (Y%)	
	1		2		3		4		Min.	Max.
	x	y	x	y	x	y	x	y		
White	0.303	0.300	0.368	0.366	0.340	0.393	0.274	0.329	15.0	---
Yellow	0.498	0.412	0.557	0.442	0.479	0.520	0.438	0.472	12.0	30.0
Orange	0.558	0.352	0.636	0.364	0.570	0.429	0.506	0.404	7.0	25.0
Green	0.026	0.399	0.166	0.364	0.286	0.446	0.207	0.771	2.5	11.0
Red	0.648	0.351	0.735	0.265	0.629	0.281	0.565	0.346	2.5	11.0
Blue	0.140	0.035	0.244	0.210	0.190	0.255	0.065	0.216	1.0	10.0

* The four pairs of chromaticity coordinates determine the acceptable color in terms of the CIE 1931 Standard Colorimetric system measured with CIE Standard Illuminant D65.

Film Logo Pattern



Note:

All ORALITE® products are manufactured within an ISO 9001:2015 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.



WARNING – This product may expose you to chemicals which are known in the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to – www.P65Warnings.ca.gov

ORALITE® is a trademark of ORAFOL Europe GmbH



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