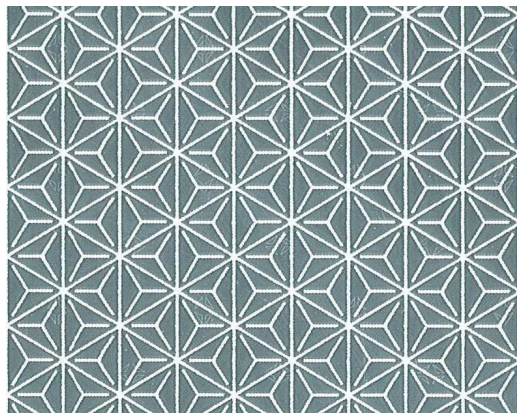


Preliminary Technical Product Bulletin

Reflexite® VC212 HiPerformance

For vehicle graphics applications
Bulletin #200-28

Product



Reflexite® VC212 is a tough weather and solvent resistant product designed for outdoor use for various livery applications including emergency services vehicles. The material is die cuttable and plotter cuttable, and easy to apply onto smooth painted or unpainted vehicle surfaces.

Construction

Reflexite VC212 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 material is not more than 0,20mm thick, and comes with an aggressive high-tack pressure sensitive adhesive. It is single layer, with no need for edge sealing. Printing on the material is not recommended.

Reflectivity

Typical values for the coefficient of retroreflection (R') for Reflexite VC212 are shown in table 1 when illuminated with CIE standard illuminant A and measured with the provisions of CIE no.54. The values are an average of rotation angles 0° and 90°.

Colour

Reflexite V212 is available in white, blue, yellow, green and red. The colour shall be located in the area defined by the chromaticity coordinates and luminance factor provided in Table 2, when measured in accordance with the provisions of CIE No. 15.2. The four pairs of coordinates determine the acceptable colour when measured with standard illuminant D65 using a Hunter LabScan.

Adhesive

The adhesive is protected by a release liner, which shall be removed by peeling, without soaking in water or other solvents.

A 25mm strip shall provide a bond such that it shall support a 800g weight for 5 minutes without the strip peeling for a distance of more than 50mm when applied to a smooth aluminium surface as specified in the ASTM 4956 adhesion test.

Impact Resistance

Reflexite VC212 sheeting shall show no signs of cracking or delamination outside the actual area of impact when it is subjected to an impact of 1.13 N·m generated by a 0,91kg weight with a 16mm rounded tip, as per ASTM D4956.

Table 1
Coefficient of Retroreflection (R')*

Entrance Angle (Beta=β1)	Colour				
	White	Blue	Green	Yellow	Red
0,2°/5°	325	25	55	220	55
0,2°/30°	150	11	25	100	25
0,2°/40°	110	8	12	70	12
0,33°/5°	180	14	21	120	25
0,33°/30°	100	8	12	70	14
0,33°/40°	95	7	11	60	13
2,0°/5°	5	0.2	0.5	3	1
2,0°/30°	2.5	0.1	0.3	1.5	0.4
2,0°/40°	1.5	-	0.2	1	0.3

*) The coefficient of retroreflection (R_A) has units of cd/lux/m²

Application Instructions

Material must be applied when the air and surface temperature is between 15°C and 38°C to assure proper adhesive bonding. Surfaces must be clean from all grease, oil and dirt. 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. Please contact Reflexite for complete application instructions (Technical Document App-18).

Warranty

Reflexite VC212 has a 5 (five) year warranty. Please contact Reflexite for full details.

Roll Size

Standard rolls are 775mm x 45,7m.

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Table 2
Colour Specification Limits (daytime)

Colour	Chromaticity Coordinates on CIE diagram*								
	1		2		3		4		Y%
	X	Y	X	Y	X	Y	X	Y	Min
White	0.303	0.300	0.368	0.366	0.340	0.393	0.274	0.329	27.0
Blue	0.140	0.035	0.244	0.210	0.190	0.255	0.065	0.216	1.0
Red	0.735	0.265	0.700	0.250	0.610	0.340	0.660	0.340	3.0
Green	0.026	0.399	0.166	0.364	0.286	0.446	0.207	0.771	3.0
Yellow	0.498	0.412	0.557	0.442	0.479	0.520	0.438	0.472	15.0

*) The four pairs of chromaticity coordinates determine the acceptable chromaticity when measured with standard illuminant D65

IMPORTANT NOTICE

All Reflexite 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 Reflexite 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 Reflexite 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.

Reflexite European Conversion Center

Unit 5, Cleaboy Business Park,
Old Kilmeaden Road,
Waterford, Ireland.
Tel. +353 51 359400
Fax. +353 51 359459
www.reflexite.eu

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