

KIWALITE Engineer Grade Reflective Sheeting #2600 Series

Description

KIWALITE Engineer Grade Reflective Sheeting #2600 Series is a leading-edge reflective sheeting of glass-beads technology, having smooth and flat surface. The sheeting meets or exceeds requirements of ASTM D4956 Type1 Specification, ISO 3864-1 Type1 Specification and EN12899-1 Class RA₁ Specification. The sheeting has excellent visibility at wider entrance angle than conventional engineer grade sheeting of enclosed lens type, and solvent inkjet printability. These prominent properties offer wider applications, from official traffic signs to conspicuous commercial signs, or functional safety appliances.

Color Availability, Product code No. and Standard size

Color	Product Code No.
White	#2613
Yellow	#2643
Orange	#2653
Red	#2663
Green	#2673
Blue	#2683
Black (Special grade)	#2693

Standard Width : 48inches
Standard Length : 45.7m (50yards)

Photometric performance

Minimum Coefficient of Retroreflective values of KIWALITE Engineer Grade Reflective Sheeting #2600 Series when measured in accordance with CIE Publication 54:1982 are shown in Table 1.

Table 1 : Minimum Coefficient of Retroreflective values (R_A) (cd/lx/m²)

Observation Angle	Entrance Angle	White #2613	Yellow #2643	Orange #2653	Red #2663	Green #2673	Blue #2683
0.2°	+5°	70	50	25	14.5	9	4
	+30°	30	22	10	6	3.5	1.7
	+40°	10	7	2.2	2	1.5	0.5
0.33°	+5°	50	35	20	10	7	2
	+30°	24	16	8	4	3	1
	+40°	9	6	2.2	1.8	1.2	-
2.0°	+5°	5	3	1.2	1	0.5	-
	+30°	2.5	1.5	0.5	0.5	0.3	-
	+40°	1.5	1	-	0.5	0.2	-

Day-time color - Specification Limits

The chromaticity co-ordinates and luminance factor of KIWALITE Engineer Grade Reflective Sheeting #2600 Series when measured in accordance with CIE Publication no.15.2 using CIE standard illumination D65 and CIE 45/0 geometry conform to Table 2.

Table 2 : Day-time color Specification Limits

Color	Specification Limits								Luminance	
	1		2		3		4		Min	Max
	x	y	x	y	x	y	x	y		
#2613 White	0.355	0.355	0.305	0.305	0.265	0.325	0.335	0.375	0.27	—
#2643 Yellow	0.545	0.454	0.487	0.423	0.427	0.483	0.465	0.534	0.16	—
#2653 Orange	0.610	0.390	0.535	0.375	0.506	0.404	0.570	0.429	0.14	—
#2663 Red	0.735	0.265	0.674	0.236	0.569	0.341	0.655	0.345	0.03	—
#2673 Green	0.007	0.703	0.248	0.409	0.177	0.362	0.026	0.399	0.03	—
#2683 Blue	0.078	0.171	0.150	0.220	0.210	0.160	0.137	0.038	0.01	—

Application

KIWALITE Engineer Grade Reflective Sheeting #2600 Series is a pressure-sensitive sheeting that should be applied at room temperature (18 to 28°C) by a squeeze roll applicator.

Substrates: Flat Aluminum alloys comply with EN 12899-1, 2006 Standard are only recommended.
Always pretest your specific substrate prior to application.
Plastic substrates are not recommended.

Adhesion properties:

Adhesion — 10.0mm — when measured in accordance with ASTM D4956-09 clause 7.5.

Resistance to Artificial Weathering

After the artificial weathering test by sunshine weather-o-meter for 1,000 hours except #2653 Orange and #2693 Black, KIWALITE Engineer Grade Reflective Sheeting #2600 Series retains more than 50% of the reflective intensity values specified in Table-1, and also show good colorfastness and no evidence of cracking, scaling, pitting, blistering, edge lifting or curling or more than 0.8mm shrinkage or expansion.

Other Properties

KIWALITE Engineer Grade Reflective Sheeting #2600 Series conforms to all other requirements specified in ISO 3864-1 and ASTM D 4956-09 Type1.

Performance Life

According to the test results by both natural outdoor exposure and artificial weathering, KIWALITE Engineer Grade Reflective Sheeting #2600 Series can be expected to provide the effective performance life of 7 years except #2653 Orange color (for 3 years) under normal and vertical outdoor conditions. However, The effective performance life will depend upon substrate selection, preparation and compliance with recommended application procedures, exposure conditions and maintenance.

Screen process Ink

KIWALITE KT-F series Screen Process INK which is fast dry one component ink can be used on KIWALITE Engineer Grade Reflective Sheeting #2600 Series.

Solvent Inkjet Printability

KIWALITE Engineer Grade Reflective Sheeting #2600 Series has printability with solvent inkjet printer. Always pretest the sheeting with your printer and solvent inks to be used prior to application.

Storage and Shelf Life

KIWALITE Engineer Grade Reflective Sheeting #2600 Series should be stored in a cool, dry area, preferably at 18 - 28°C and 30 - 60% relative humidity, and should be used within one year from date of delivery. For the details of storage, see KIWALITE instruction manual "No.KM-40004 Instruction for Storage and Handling".

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