

KIWALITE Safety Grade Reflective Sheeting #9000 Series

Description

KIWALITE Safety Grade Reflective Sheeting #9000 Series is an enclosed-lens type reflective sheeting with numerous glass beads enclosed in transparent resin.

This reflective sheeting is suitable for outdoor use for relatively short period with the excellent reflective performance in the night. The major intended uses of KIWALITE Safety Grade Reflective Sheeting #9000 Series are construction sign, temporary sign, or stickers.

Color Availability, Product code No. and Standard size

Standard Color	Product Code No.
White	#9013
Yellow	#9043
Orange	#9053
Red	#9063
Green	#9073
Blue	#9083

Custom Color (upon request)	Product Code No.
Lemon Yellow	#9033
Light Green	#9173
Water Blue	#9183
Brown	#9193
Sky Blue	#9283
Black	#9093

Standard Width : 24inches, 48inches
 Standard Length : 50 yards, 100 yards

Photometric Performance

Coefficient of Retroreflective values of KIWALITE Safety Grade Reflective Sheeting #9000 Series when measured in accordance with CIE Publication 54:1982 are shown in Table 1.

Table 1 : Coefficient of Retroreflective values (R_A) ($cd/lx/m^2$)

Observation Angle	Entrance Angle	White #9013	Yellow #9043	Orange #9053	Red #9063	Green #9073	Blue #9083
0.2°	+5°	35	25	10	7	5	1.3
	+30°	20	15	5	5	3.5	0.7

Performance Life

According to our test results and experiences, KIWALITE Safety Grade Reflective Sheeting #9000 Series can be expected to provide the effective performance life of approx. 18 months under normal mild climate and vertical installment when properly processed and applied in accordance with KIWALITE manuals and advices. However, the effective performance life depends upon substrate selection, preparation, compliance with our application instructions, exposure conditions and maintenance.

Application Instructions

1. Substrate

KIWALITE Safety Grade Reflective Sheeting #9000 Series can be applied on clean, durable and non-porous materials (e.g. aluminium or coated steel plate). However, some materials (e.g. plastic plates) may contain release agent, oils, unreacted monomers, plasticizer, dyes or gases. Always pretest your specific substrate and confirm appropriate substrate is selected prior to application.

2. Application

KIWALITE Safety Grade Reflective Sheeting #9000 Series has a pressure sensitive adhesive on the back that should be applied at room temperature (18 to 28°C) by hand roller or squeeze roll applicator. Application procedure and devices are the same as for KIWALITE Engineering Grade #2000 Series or KIWALITE High Intensity Grade #22000 Series.

3. Printing / Cut Letter

KIWALITE screen printing ink KT-F Series (fast dry one component ink) is available. Although KIWALITE Inks are best suited for screen printing on KIWALITE Safety Grade Reflective Sheeting #9000 Series, general inks available in markets are also applicable on the sheeting. Always pretest general inks and confirm appropriate inks are selected.

Instead of printing with KIWALITE Inks, KIWACAL transparent color films, FF-GF Series and LF-AF Series films are available for digital cutting.

4. Cut

KIWALITE Safety Grade Reflective Sheeting #9000 Series can be cut by scissors, cutting knife, die cutting machine or cutting plotter.

Storage and Shelf Life

KIWALITE Safety Grade Reflective Sheeting #9000 Series should be stored in a cool, dry area, preferably at 18 - 28°C and 30 - 60% relative humidity in accordance with KIWALITE manuals and advices, 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".

**KIWA CHEMICAL INDUSTRY CO., LTD
FILM DIVISION**

33, Minamitanabe-cho, Wakayama-city, Japan

Terms and Conditions of Sales

Although the manufacturer makes no guarantee on the absolute accuracy or completeness of the statements, recommendations and technical information and data herein contained, they are based on the manufacturer's tests which the manufacturer entrust reliability.

The obligation of the manufacturer and seller shall be limited to the following scope. The manufacturer and seller shall be obligated only to replace the products which are proven to be defective. In no event shall the manufacturer or the seller be liable for any direct or consequential injury, loss or damage arising from the use of, or the incorrect use of the products. Before the use of the products, the user shall determine the suitability of the products. For the user's intended use and the user assumes all risk and liability whatsoever in connection therewith.

This guarantee limited shall not apply to the cases where administrative officials of seller give otherwise guarantee in a contract agreement.