

KIWACAL ANTISKID FILM

KIWA CHEMICAL INDUSTRY CO., LTD
FILM DIVISION

KIWACAL ANTISKID FILM



KIWACAL Anti-skid Film helps you to avoid slip or tumble accidents on slippery surface.

Patterned surface of KIWACAL Anti-skid Film covered with glass-beads enclosed in transparent resin top layer protects you from slip or tumble accidents. KIWACAL Anti-skid Film has good outdoor durability. Applicable for indoor/outdoor use.

Entrance floor is dangerously slippery on rainy day.

Wet shoes or drippy umbrellas could be a cause of accident...

KIWACAL Anti-skid Film protects you from slip on slippery surface, and removes slip concerns.

This product has high transparency and UV (ultra violet ray) block function in addition to anti-skid function. With KIWACAL Anti-skid Film, advertisement and guide on floor are easily produced.



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As an over-lamination film for inkjet printing works, KIWACAL Anti-skid Film does not spoil designs and colors underlying. UV block function prevents works from fading.

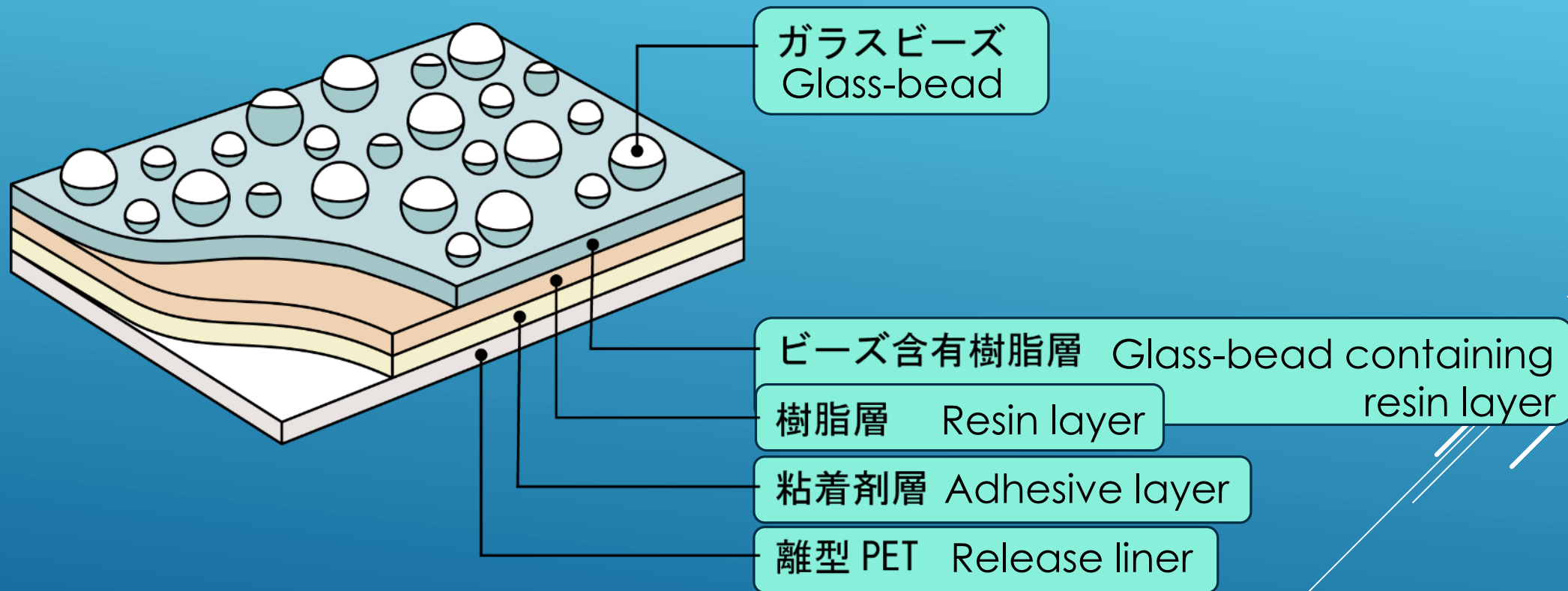
KIWACAL Anti-skid Film is best suitable for floor graphics use of facade or entrance.

Combining of the two functions of safety and advertisement / decoration is the key concept of KIWACAL Anti-skid Film.



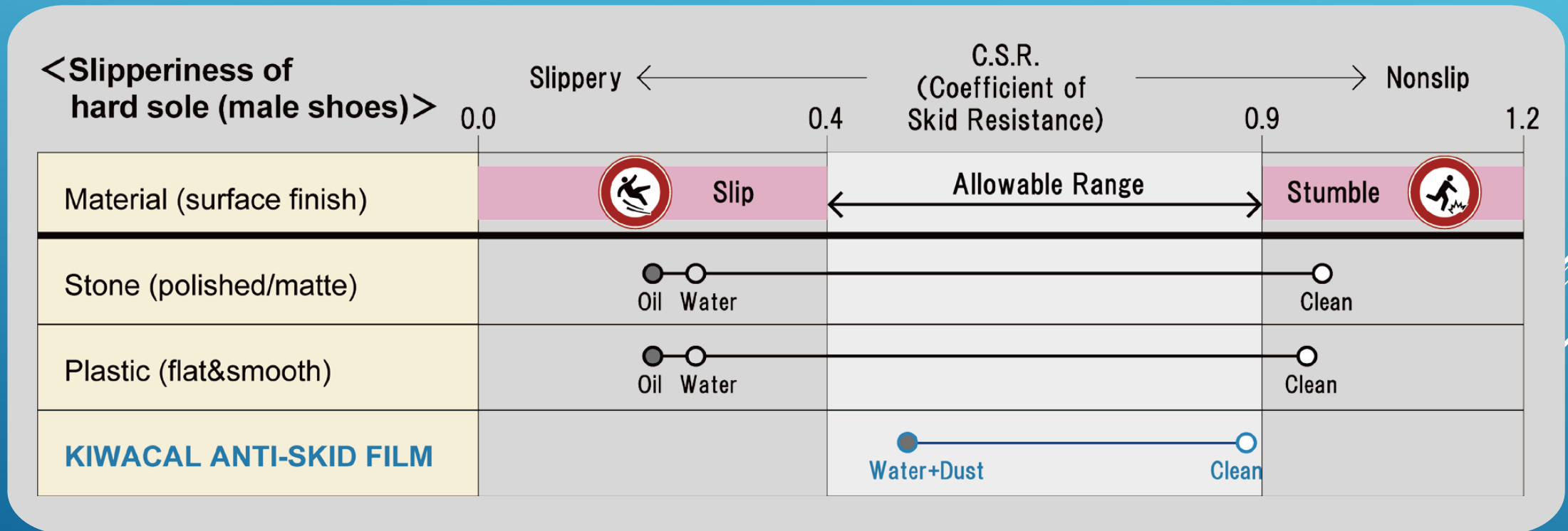
KIWACAL ANTISKID FILM

Structure



KIWACAL ANTISKID FILM

<Skid Resistance>



KIWACAL ANTISKID FILM

<性能一覽表>

TEST ITEMS	TEST CONDITIONS	RESULTS	TEST ITEMS	TEST CONDITIONS	RESULTS	
Thickness (μm)	Film	160	Heat Resistance		70°C x 168hrs	No effect
	Adhesive	40	Chemical Resistance	Water	98°C x 5min	No effect
Tensile Strength (N/10mm)	MD, TD	17.6		10%HCL	5m i n	No effect
Elongation (%)	MD, TD	100		10%NH4OH	20min	No effect
Adhesion (N/10mm)	Aluminum	7.8		Reference Fuel	1hr	No effect
	Polycarbonate	9.8		Petrol	30min	No effect
	Acrylic	9.8		Methyl Alcohol	10min	No effect
	PVC	14.7		Mineral Spirits	10min	No effect
Dimensional Stability (%) (applied on substrate)	MD	0.1	Accelerated Weathering	SWOM	2000hrs	No effect
	TD	0.1		QUV	2000hrs	No effect

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Durability



INITIAL



SUNSHINE 2000hrs



QUV 3000hrs

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KIWA's Product



Other
Company's
Product



2 years after installation

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Application Examples



Shopping Street

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Application Examples



Platform at a Train Station

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Application Examples



JR Hanwa Line (Shin-Imamiya St.)

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Application Examples



Tokyo Metro (Tokyo St.)

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Application Examples



Floor Warning Sign
at a Station

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Application Examples



Steps at a Station

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Application Examples

Outdoor use on Slippery Ground



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Application Examples



Vehicle Road
Pedestrian Road

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Application Examples



Floor Signs at
a Hospital

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Application Examples

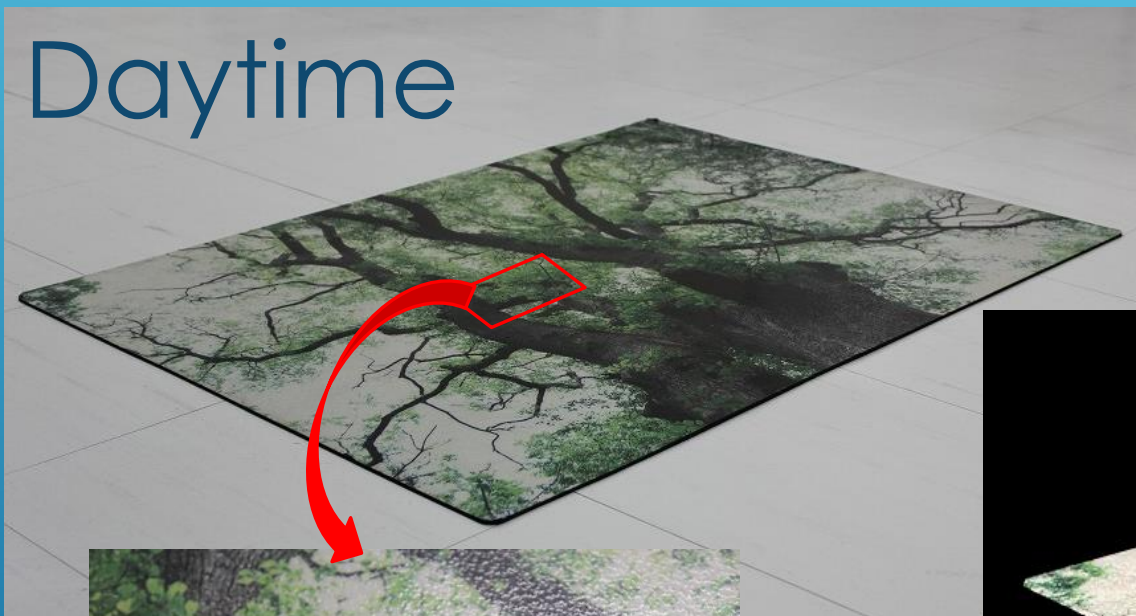


Handrails

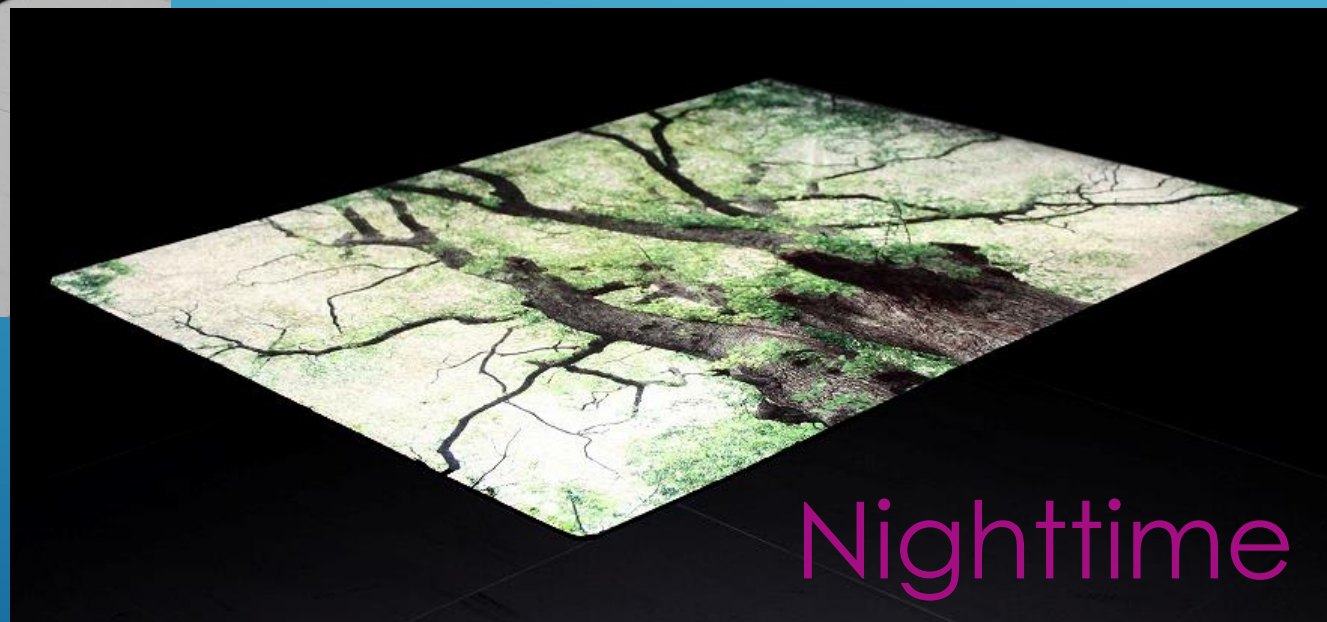
KIWACAL ANTISKID FILM

Application Examples

Daytime



Floor Sign
(with Super Wide-angle
Reflective Sheeting)



Nighttime

KIWALITE SUPER WIDE ANGLE REFLECTIVE SHEETING



KIWA SUPER WIDE ANGLE REFLECTIVE SHEETING

(PAT.P)

KIWA Super Wide Angle is reflective sheeting of next generation. It has the very high incidence angle characteristic and the observation angle characteristic.

Front luminosity passes the 1st Class in JIS. It maintains a high reflective performance also at visibility in a wide incidence angle and the place distance from the light source. This is the feature, which is not looked at by the conventional sheeting. Use become possible also in the severe installation place of the degree of incidence angle from light source, such as a side stone and the surface of a wall, which reflective sheeting of former made weak.

If this is wound around a pillar, it will shine clearly to the position of frame. A super wide angle reflective sheet can be used also for an installation place with the obtuse angle from light sources, such as a curbstone and the surface of a wall. The ordinary reflective sheeting has not been used.

For : Traffic Sign, Guidance Sign, Construction Sign Board, Car Stop, Guardrail, Safe Fence, Surface of Wall, Encloses, Telegraph Pole, Pole... E.T.C.



Super Wide Angle Reflective Sheet

Ordinary Type



-Night Time-

Super Wide Angle Reflective Sheet

Ordinary Type



Right : Super Wide Angle Reflective Sheet

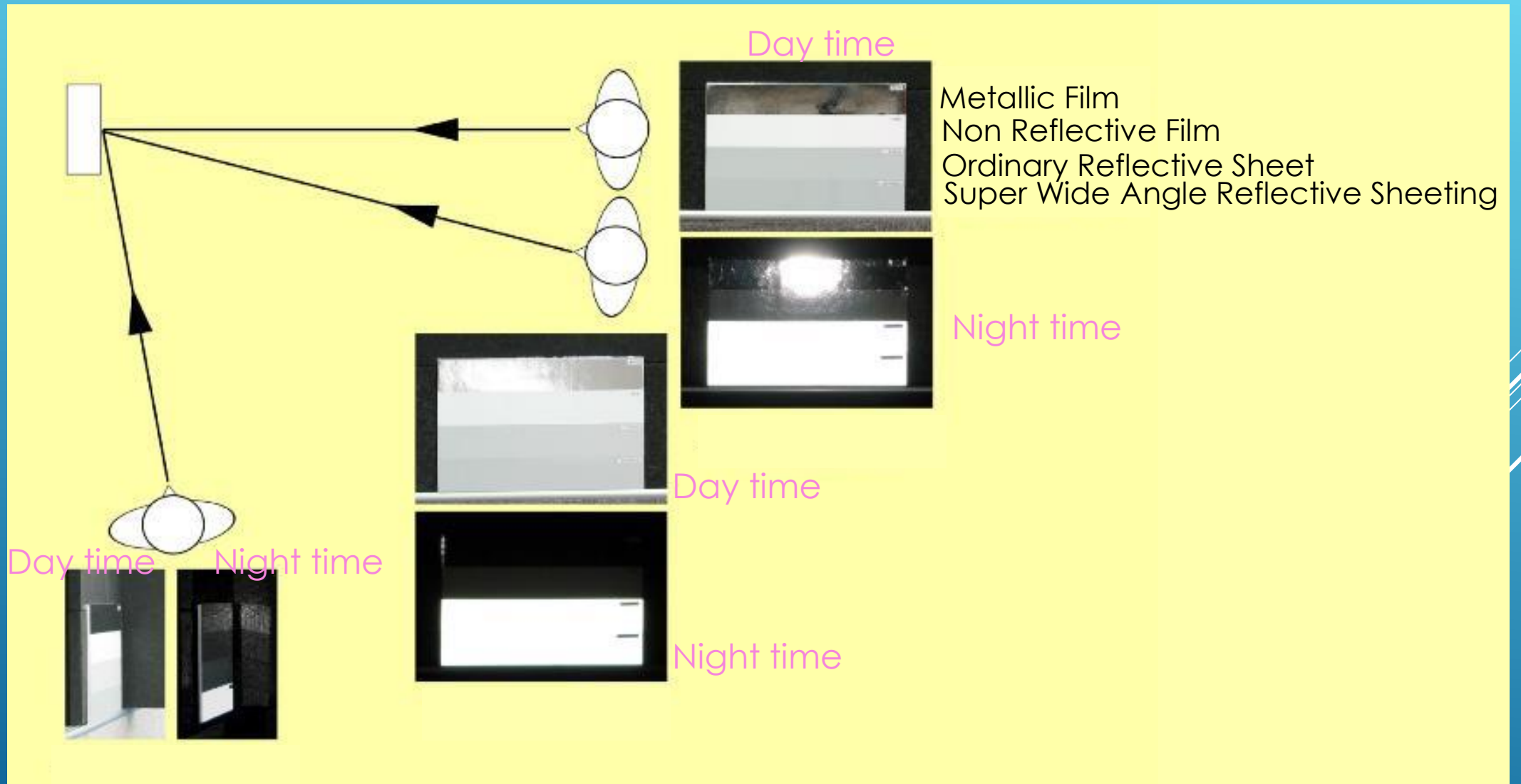
Left : High Intensity Grade



At the time of night and lighting

The incidence angle of light source is 70° to a panel.
Camera position is 4° Observation angle.

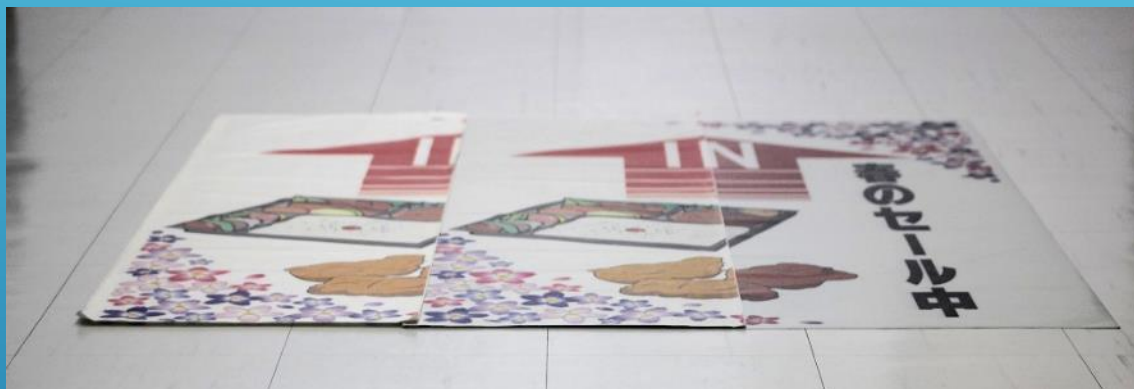
KIWALITE SUPER WIDE ANGLE REFLECTIVE SHEETING



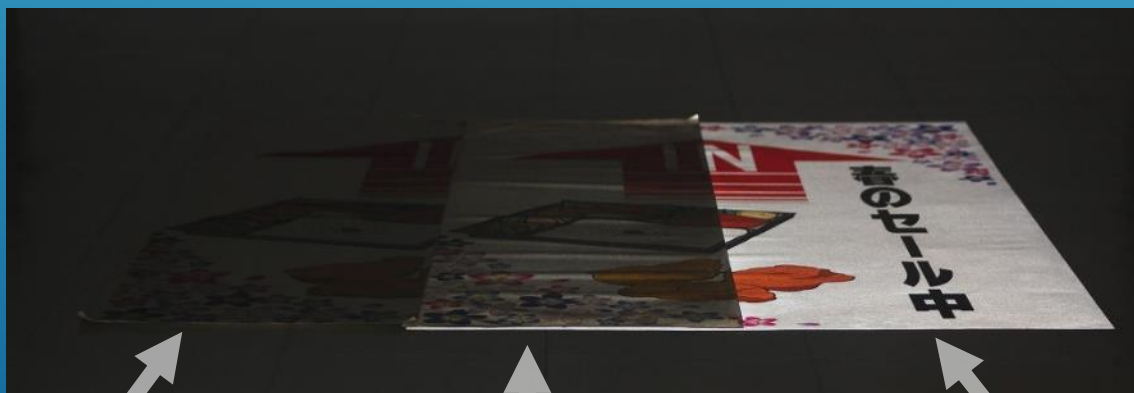
KIWACAL ANTISKID FILM

Application Examples

Floor Sign
(with Super Wide-angle
Reflective Sheeting)



Daytime



Nighttime

Non Reflective Media

Ordinary Reflective Media

Super Wide Angle Reflective Sheeting

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Application Examples



Factory walkway
(with Super
Wide-angle
Reflective Sheeting)

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Application Examples

ORDINARY REFLECTIVE SHEETING



KIWA/SUPER WIDE-ANGLE
REFLECTIVE SHEETING

Floor Signs

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Evacuation Signs (Outdoor Floor Sign)



シートの縦70センチ、横50センチ。最寄りの津波避難所や一時避難所、高台までの方向を示す矢印と距離が印刷されて

東日本大震災による津波被害を踏まえて、逗子市は4日、夜間でも視認性に優れた津波避難経路を表示する路面シートの設置を始めた。全国的にも珍しい取り組みで一時避難所までの行き先をわかりやすく案内しようと、市が考案した。

夜も安全に避難所へ

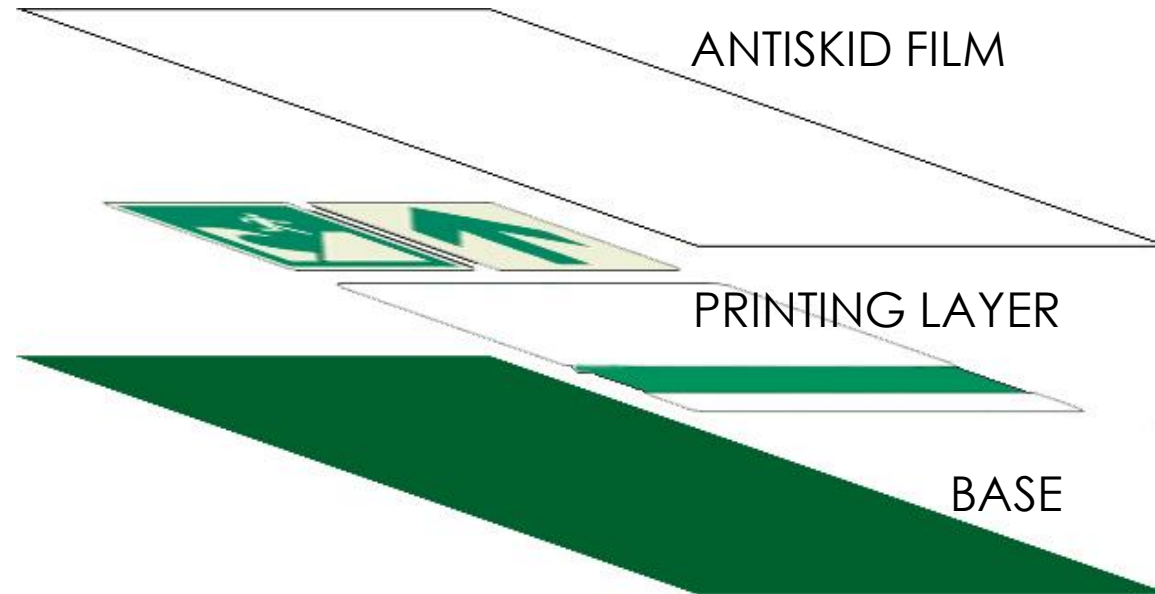
逗子市 経路示す光る路面シート

いる。屋外の道路上でも長時間耐えられる特殊な化学処理が施された蓄光材と、広角反射タイプの反射材を採用。暗闇でも光を放って誘導機能を発揮するのが特徴だ。市はこれまで標高表示板を市内460カ所に設置した。しかし、逗子海岸や小坪漁港などの観光地には土地勘のない多くの観光客も訪れることから、避難場所までをわかりやすく誘導案内していく。5年計画で市内全域約200カ所に整備する計画で、2012年度は8口までに逗子海岸と小坪海浜地区を中心とする32カ所に新設する。（緒方 秀行）

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Evacuation Sign



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Evacuation Signs (Outdoor Floor Sign)



2 years after Installation

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Evacuation Signs (Outdoor Floor Sign)



3 years after installation

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Evacuation Signs (Outdoor Floor Sign)



4 years after installation

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Evacuation Signs (Outdoor Floor Sign)



4 years after installation

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Evacuation Signs (Outdoor Floor Sign)



5 years after installation

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Evacuation Signs (Outdoor Floor Sign)



5 years after installation