

Photoluminescent Pigments



Benefits

- Environmentally-Friendly, Non-toxic, Non-radioactive (Strontium Aluminate Based)
- Long lasting afterglow, World Highest Performance
- LED-light-source-compatible (wide range of excitation wavelengths)

Grades and Characteristics

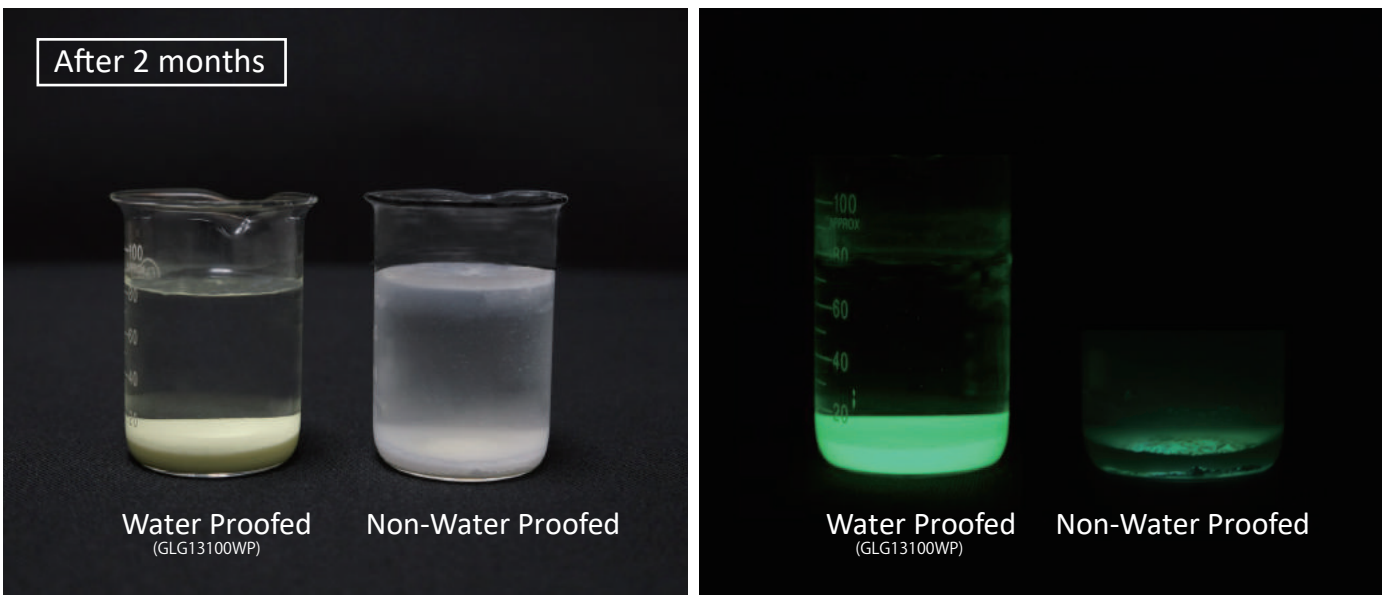
Glowing Color	Pigment Color	Grade	Code	Formula	Particle Size (D50)	Afterglow luminance (mcd/m ²)			
						2 minutes	10 minutes	30 minutes	60 minutes
Green	Yellow-green	★★★★★	GLG04000	SrAl ₂ O ₄ :Eu,Dy	0 - 100 μ	1,611	394	127	60
		★★★★★	GLG11030		30 μ	1,151	282	91	43
		★★★★★	GLG11060		60 μ	2,052	484	150	68
	Pink	★★★	PLG11060	SrAl ₂ O ₄ :Eu,Dy	60 μ	489	111	34	15
	Orange	★★★	OLG11060	SrAl ₂ O ₄ :Eu,Dy	60 μ	389	93	28	12
Blue	Blue-green	★★★★★	BLG11060	Sr ₄ Al ₁₄ O ₂₅ :Eu,Dy	60 μ	1,200	311	91	37

• Order more than 25 kg can be customized for desired luminance and grain size. Please contact us for specific requirements.
• Pigments can be added to resins, inks, and paints

Examples of Use



Waterproof Photoluminescent Pigments



Benefits

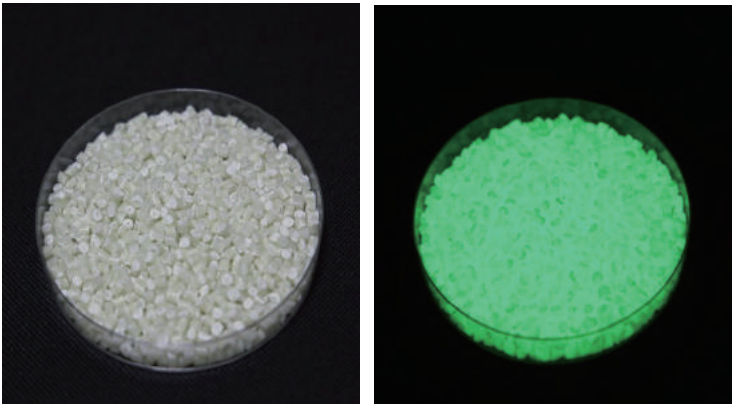
- PATENTED Coating Formulation provide even higher luminance and stable performance in water (Japanese patent obtained)
- Excellent Water Resistant
- The pH level of the Water Proof Pigments in water after 3 month remains “7.0” stable
- Non-toxic, Non-radioactive

Grades and Characteristics

Glowing Color	Pigment Color	Grade	Code	Formula	Particle Size (D50)	Afterglow luminance (mcd/m ²)			
						2 minutes	10 minutes	30 minutes	60 minutes
Green	Yellow-green	★★★★★	GLG11030WP	SrAl ₂ O ₄ :Eu,Dy	30 μ	2,070	513	166	77
			GLG11060WP		60 μ	2,246	552	174	78
			GLG13100WP		100 μ	3,239	803	253	115
			GLG13500WP		500-1000 μ	4,327	1,206	401	192

• Test method: Excitation with Xenon light of 1000 lux for 5 minutes
• Orders of 25 kg or more can be customized for desired luminance and grain size. Please contact us for specific requirements.
• All photoluminescent pigments including Blue Pigment can be supplied as waterproofed.
• Pigments can be added to resins, inks, and paints.

Photoluminescent Masterbatches

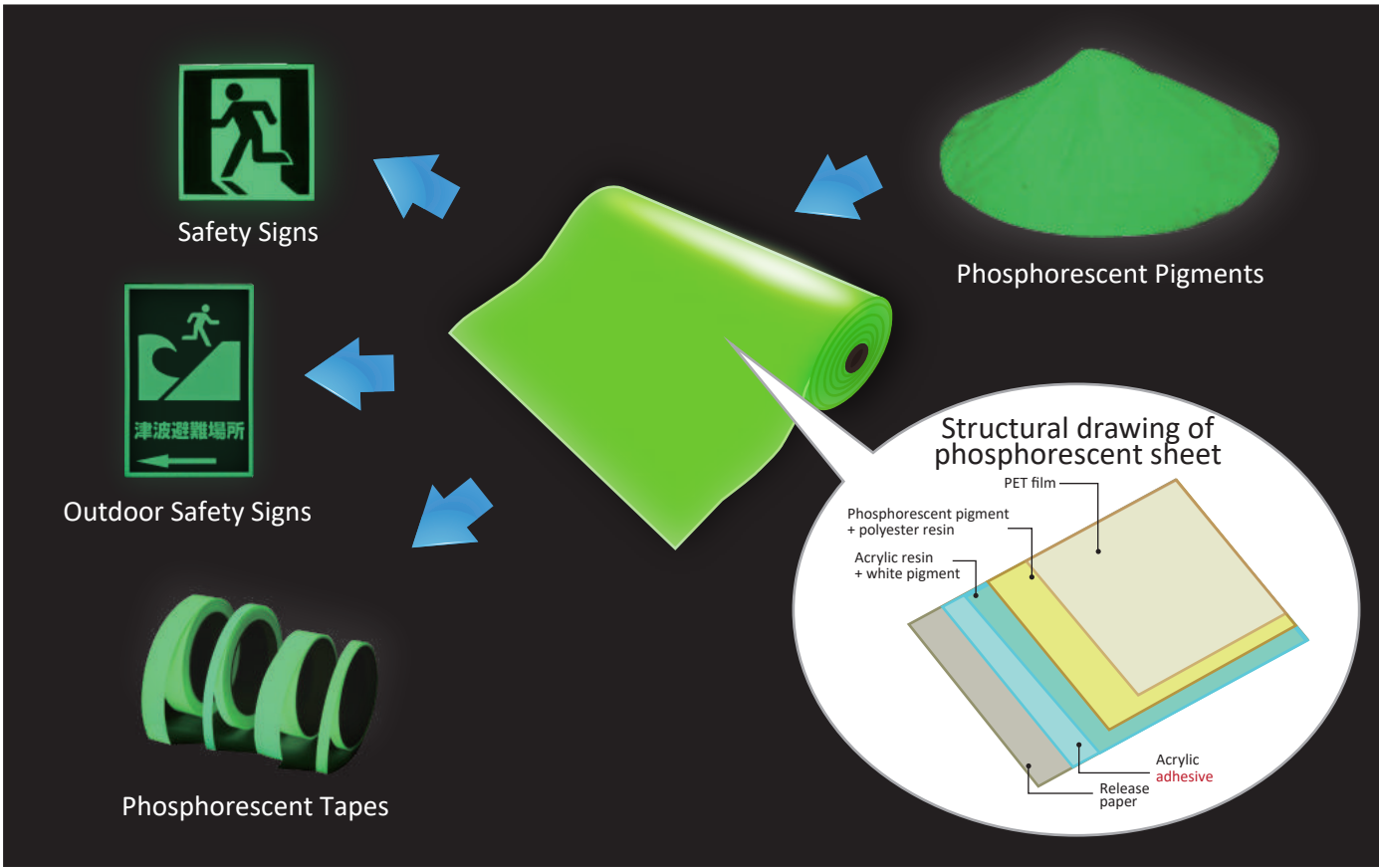


▼ Afterglow luminance (PP 30%) Grade: ★★★★★				
Elapsed time	2 minutes	10 minutes	30 minutes	60 minutes
Luminance (mcd/m ²)	1,488	350	110	51
Specification of DIN 67510 Class D	1,100	260	85	35

• Test method: Excitation with Xenon light of 1000 lux for 5 minutes
• Available in a range of plastic types: PP, PE (HDPE/LDPE), PVC, EVA, PS, PC, ABS
• Concentrate: 10-40%

Phosphorescent Sheet

Super glow
★★★★★
High glow
★★★★
Standard
★★★



- The Best Performance in the World
- Environmentally - Friendly, Non-Toxic, Non-Radioactive
- Extremely Durable
- Easy Installation, Just stick it on the construction surface

DIN - CLASS E					DIN - CLASS D					DIN - CLASS C				
Super glow Code: SLGS ★★★★★					High glow Code: HGS ★★★★★					Standard glow Code: SGS ★★★				
Elapsed time (min)	2 min	10 min	30 min	60 min	Elapsed time (min)	2 min	10 min	30 min	60 min	Elapsed time (min)	2 min	10 min	30 min	60 min
Luminance (mcd/m²)	2,960	660	210	94	Luminance (mcd/m²)	1,406	292	91	40	Luminance (mcd/m²)	986	226	67	29
DIN-Class E	2,200	520	170	70	DIN-Class D	1,100	260	85	35	DIN-Class C	690	140	45	20
Size	1,200 mm x 30 M				Size	1,200 mm x 30 M				Size	1,200 mm x 30 M			
Thickness	0.56mm				Thickness	0.32mm				Thickness	0.22mm			

DIN67510-4:2008-2 Sub-classification		Minimum luminance(mcd/m²) after a decay time of			
		2 min	10 min	30 min	60 min
A		108	23	7	3
B		210	50	15	7
C		690	140	45	20
D		1,100	260	85	35
E		2,200	520	170	70

*Measurement of the photoluminescence according to DIN 67510-4:2008-2
*Testing Institution: SLGS/HGS---Federal Institute of Metrology METAS Schweizerische Eidgenossenschaft SLS---LTI Corporation

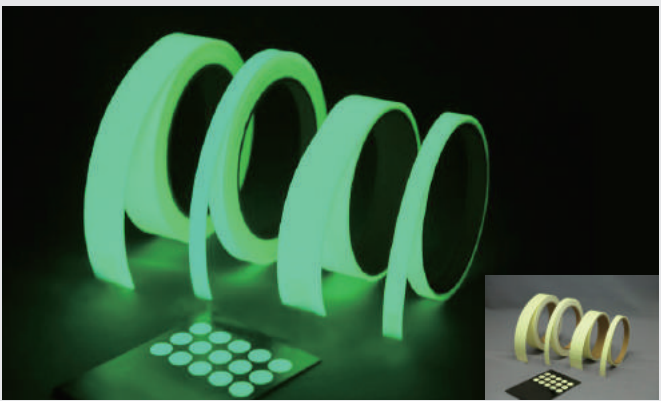
Phosphorescent Tapes

Super glow
★★★★★
High glow
★★★★



Super Lumi GLOW

DIN-Class E



Features

- Ultimate level luminance and afterglow time

Code

Code	Size
SLG1001	10 mm × 1 M
SLG1005	10 mm × 5 M
SLG1501	25 mm × 1 M
SLG1505	25 mm × 5 M
SLG10P	Round sticker 10 mm in diameter, Qty: 15 pieces

Material: PET; Phosphorescent material; Acrylic adhesive
Thickness: 0.56 mm (±0.1)

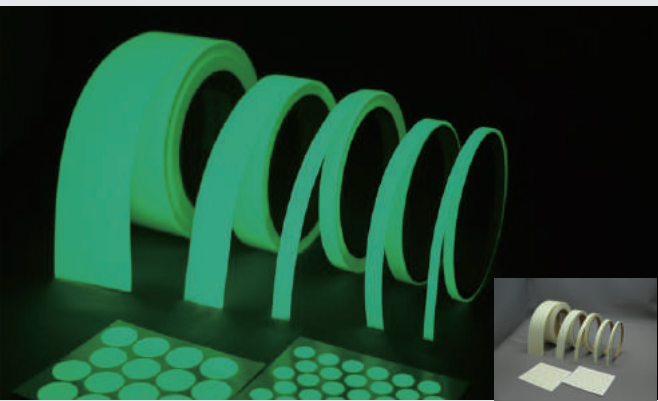
Luminance data

Elapsed time	2 min	10 min	30 min	60 min
Luminance (mcd/m²)	2,960	660	210	94
Class E of DIN67510	2,200	520	170	70

Measurement of the photoluminescence according to DIN 67510 Part4:2008-2

High Lumi GLOW

DIN-Class D



Features

- Superior level luminance and afterglow time

Code

Code	Size
HG0501	5 mm × 1 M
HG1001	10 mm × 1 M
HG1005	10 mm × 5 M
HG2505	25 mm × 5 M
HG5010	50 mm × 10 M
HG10P	Round sticker 10 mm in diameter, Qty: 36 pieces
HG18P	Round sticker 18 mm in diameter, Qty: 16 pieces

Material: PET; Phosphorescent material; Acrylic adhesive
Thickness: 0.32 mm (±0.1)

Luminance data

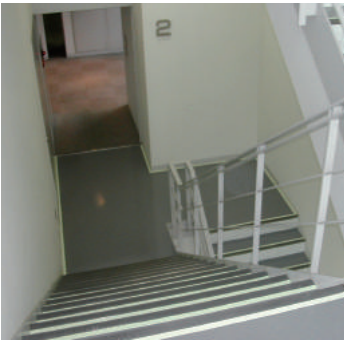
Elapsed time	2 min	10 min	30 min	60 min
Luminance (mcd/m²)	1,406	292	91	40
Class D of DIN67510	1,100	260	85	35

Measurement of the photoluminescence according to DIN 67510 Part4:2008-2

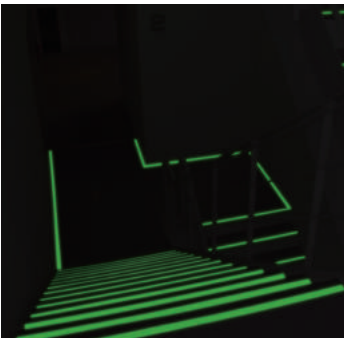
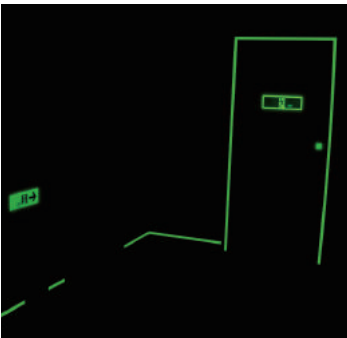
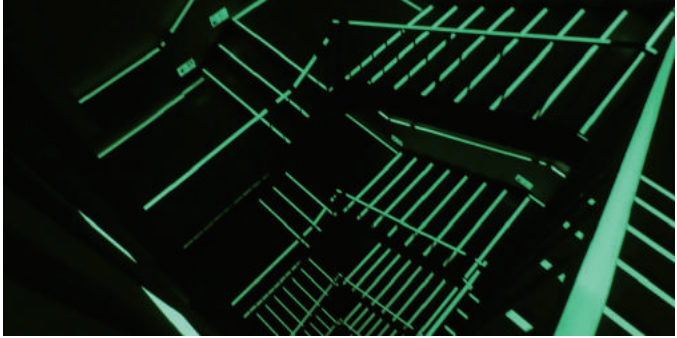
*Do not stick on any rough or jagged surfaces.

Installation examples

[Under daylight]



[In the dark]



Safety Signs

Super glow
★★★★★
High glow
★★★★
Standard
★★★

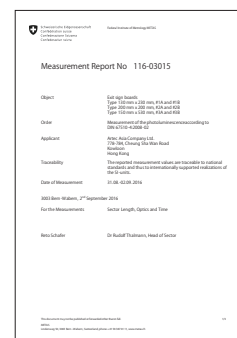


International Standards

- DIN67 510 Part1:2009**
Phosphorescent pigments and products - Measurement and identification by the manufacturer.
- DIN67 510 Part4:2008**
Phosphorescent pigments and products - Luminance requirements for photoluminescent materials.
- JIS Z 9107**
Safety colors and Safety signs
-Classification, Performance and durability of Safety signs.
- BS ISO 16069:2004**
Graphical symbols. Safety signs.
Safety way guidance systems (SWGS).
- BS ISO 3864-4:2011**
Graphical symbols - Safety colours and safety signs - Part4:Colormetric and photometric properties of safety sign materials.
- BS ISO 3864-1:2011**
Graphical symbols - Safety colours and safety signs - Part1:Design principles for safety signs and safety markings.
- BS ISO 3864-3:2012**
Graphical symbols - Safety colours and safety signs - Part3:Design principles for graphical symbols for use in safety signs.
- BS EN ISO 7010:2012**
Graphical symbols - Safety colours and safety signs - Registered safety signs.
- BS ISO 9186-1:2014**
Graphical symbols - Test methods - Methods for testing comprehensibility.

Standards and Regulations we MEET:

- ISO** International Standard Organization (ISO)
- REACH** Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)
- DIN** Deutsche Industrie Normen (DIN)
- JIS** Japanese Industrial Standards (JIS)
- ASTM** ASTM International (ASTM)



World Highest Performance! Easy Installation! Cost less! The reason for going our products are eliminating your electric and maintenance costs, and reducing the CO₂ produced. You can rely on it!

DIN - CLASS E					DIN - CLASS D					DIN - CLASS C				
Super glow Code: SLG (Thickness: 0.56mm)					High glow Code: HG (Thickness: 0.32mm)					Standard glow Code: SG (Thickness: 0.22mm)				
Elapsed time (min)	2 min	10 min	30 min	60 min	Elapsed time (min)	2 min	10 min	30 min	60 min	Elapsed time (min)	2 min	10 min	30 min	60 min
Luminance (mcd/m ²)	2,960	660	210	94	Luminance (mcd/m ²)	1,406	292	91	40	Luminance (mcd/m ²)	986	226	67	29
DIN-Class E	2,200	520	170	70	DIN-Class D	1,100	260	85	35	DIN-Class C	690	140	45	20

*Testing Institution: SHL/HL---Federal Institute of Metrology METAS Schweizerische Eidgenossenschaft SL---LTI Corporation

*Do not stick on any rough or jagged surfaces.

Select the Grade code listed below when you order :

Grade	Code
Super glow ★★★★★	SLG
High glow ★★★★	HG
Standard ★★★	SG

Code: 104A / 104B / 104C	Code: 105A / 105B / 105C	Code: 106A / 106B / 106C	Code: 107A / 107B / 107C	Code: 108A / 108B / 108C
Size 104A: 120mm×340mm 104B: 150mm×400mm 104C: 200mm×450mm	Size 105A: 120mm×340mm 105B: 150mm×400mm 105C: 200mm×450mm	Size 106A: 120mm×340mm 106B: 150mm×400mm 106C: 200mm×450mm	Size 107A: 120mm×340mm 107B: 150mm×400mm 107C: 200mm×450mm	Size 108A: 120mm×340mm 108B: 150mm×400mm 108C: 200mm×450mm

Exit Signs

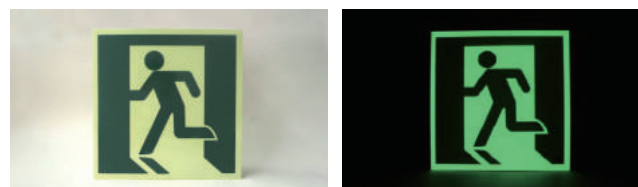
Code: 101A / 101B / 101C	Code: 102A / 102B / 102C	Code: 103A / 103B / 103C
Size 101A: 120mm×340mm 101B: 150mm×400mm 101C: 200mm×450mm	Size 102A: 120mm×340mm 102B: 150mm×400mm 102C: 200mm×450mm	Size 103A: 120mm×340mm 103B: 150mm×400mm 103C: 200mm×450mm

Large Exit Signs

Code: 201D / 201G	Code: 202D / 202G	Code: 203D / 203G
Size 201D: 300mm×300mm 201G: 150mm×150mm	Size 202D: 300mm×300mm 202G: 150mm×150mm	Size 203D: 300mm×300mm 203G: 150mm×150mm

(Examples)

Exit	+		+		=	Exit		
	+		+	Exit	=			Exit



International Way Guidance Signs

Code: 301A / 301B / 301C / 301D	Code: 302A / 302B / 302C / 302D	Code: 303A / 303B / 303C / 303D
Size 301A: 150mm×300mm 301B: 150mm×300mm 301C: 200mm×400mm 301D: 250mm×500mm	Size 302A: 150mm×300mm 302B: 150mm×300mm 302C: 200mm×400mm 302D: 250mm×500mm	Size 303A: 150mm×300mm 303B: 150mm×300mm 303C: 200mm×400mm 303D: 250mm×500mm
Code: 304A / 304B / 304C / 304D	Code: 305A / 305B / 305C / 305D	Code: 306A / 306B / 306C / 306D
Size 304A: 150mm×300mm 304B: 150mm×300mm 304C: 200mm×400mm 304D: 250mm×500mm	Size 305A: 150mm×300mm 305B: 150mm×300mm 305C: 200mm×400mm 305D: 250mm×500mm	Size 306A: 150mm×300mm 306B: 150mm×300mm 306C: 200mm×400mm 306D: 250mm×500mm
Code: 307A / 307B / 307C / 307D	Code: 308A / 308B / 308C / 308D	
Size 307A: 150mm×300mm 307B: 150mm×300mm 307C: 200mm×400mm 307D: 250mm×500mm	Size 308A: 150mm×300mm 308B: 150mm×300mm 308C: 200mm×400mm 308D: 250mm×500mm	

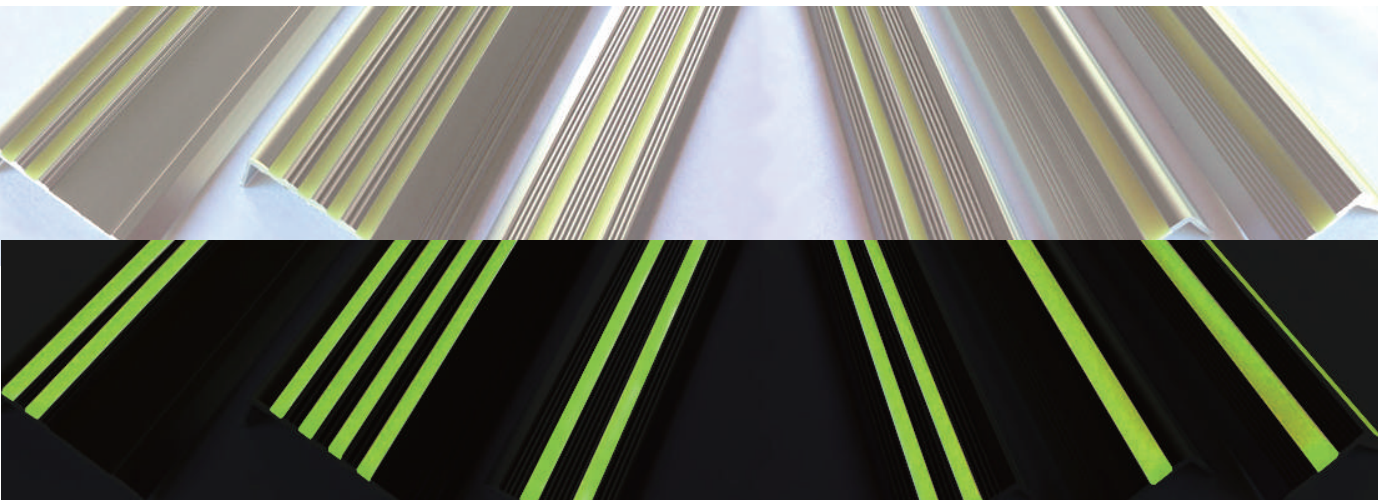
Emergency Exit Door Signs / Stairway Floor Number Signs

												
Code: 401E / 401F / 401G	Code: 402E / 402F / 402G	Code: 403E / 403F / 403G	Code: 404E / 404F / 404G	Code: 405E / 405F / 405G	Code: 406E / 406F / 406G							
Size 401E:70mm×70mm 401F:100mm×100mm 401G:150mm×150mm	Size 402E:70mm×70mm 402F:100mm×100mm 402G:150mm×150mm	Size 403E:70mm×70mm 403F:100mm×100mm 403G:150mm×150mm	Size 404E:70mm×70mm 404F:100mm×100mm 404G:150mm×150mm	Size 405E:70mm×70mm 405F:100mm×100mm 405G:150mm×150mm	Size 406E:70mm×70mm 406F:100mm×100mm 406G:150mm×150mm							
												
Code: 407N	Code: 408N	Code: 500	Code: 501	Code: 502	Code: 503	Code: 504	Code: 505	Code: 506	Code: 507	Code: 508	Code: 509	Code: 510
Size 407N:100mm×150mm	Size 408N:100mm×150mm	Size 500:150mm×300mm 501:150mm×300mm 502:150mm×300mm	Size 503:70mm×70mm 504:100mm×100mm 505:150mm×150mm	Size 506:70mm×70mm 507:100mm×100mm 508:150mm×150mm	Size 509:70mm×70mm 510:100mm×100mm 511:150mm×150mm							

Fire Alarm Location Signs / Emergency Shutdown Sign

Code: 601E / 601F / 601G	Code: 602E / 602F / 602G	Code: 603E / 603F / 603G	Code: 604E / 604F / 604G	Code: 605E / 605F / 605G	Code: 606E / 606F / 606G
Size 601E:70mm×70mm 601F:100mm×100mm 601G:150mm×150mm	Size 602E:70mm×70mm 602F:100mm×100mm 602G:150mm×150mm	Size 603E:70mm×70mm 603F:100mm×100mm 603G:150mm×150mm	Size 604E:70mm×70mm 604F:100mm×100mm 604G:150mm×150mm	Size 605E:70mm×70mm 605F:100mm×100mm 605G:150mm×150mm	Size 606E:70mm×70mm 606F:100mm×100mm 606G:150mm×150mm

Aluminum Phosphorescent Stair-Nosings



Benefits

- Amazingly bright!
- Extremely durable
- For indoor and outdoor applications
- Strong protective layer in Phosphorescent areas
- Easy installation with construction adhesive, screw or glues

Aluminum Phosphorescent Step Nosings

Code: SGAS3603 Weight: 250 g/m 	Code: SGAS5922 Weight: 510 g/m 	Code: SGAS5320 Weight: 380 g/m
Code: SGAS3413 Weight: 286 g/m 	Code: SGAS3520 Weight: 332 g/m 	Code: SGAS3030 Weight: 413 g/m

Material: Aluminum extruded shapes; Phosphorescent portion: Phosphorescent material + polyester resin
Length:1400mm/PC maximum Instillation:Construction adhesive, screw or glues. MOQ:50M

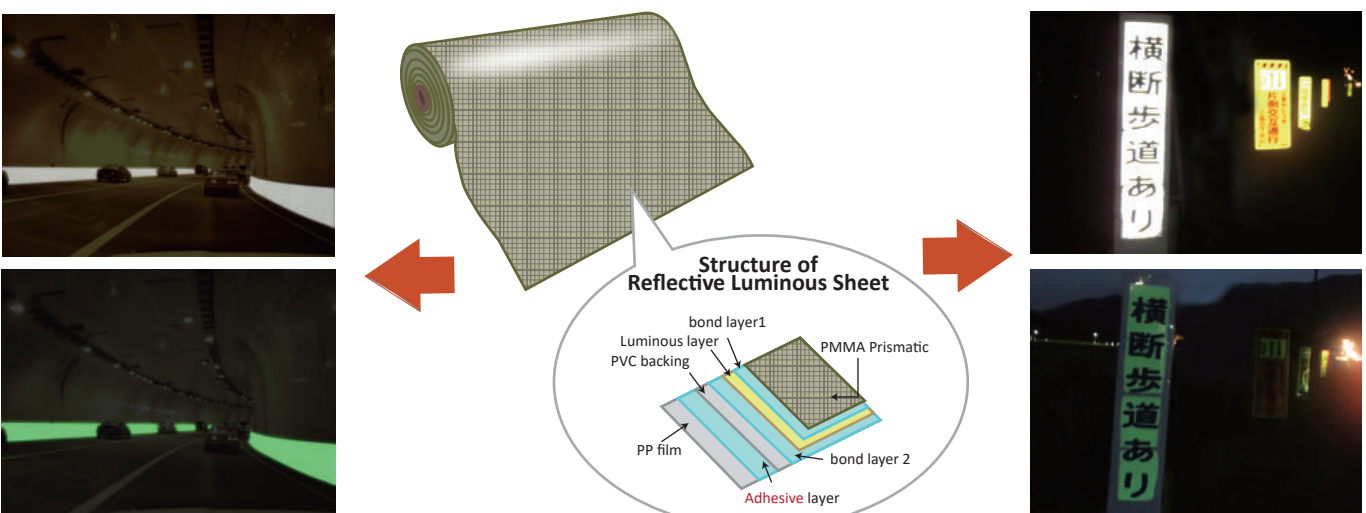
Luminance Data

Elapsed time	2 minutes	10 minutes	30 minutes	60 minutes
Luminance (mcd/m ²)	5,179	1,071	280	105
Specification of DIN 67510 Class E	2,200	520	170	70

Installation Example



Reflective Luminous Sheet



Benefits

- Conform to ASTM D4956 Type IV, EN12899-1 RA2 (Retro-Reflectivity)
- Afterglow Time:Conform to DIN67510 Class C, JIS Z9107 JC. (Photoluminescent After-glow)
- Easy Installation, Just stick it.
- High Durability : 7 years
- Printable (Screen Printing and UV inkjet printing)



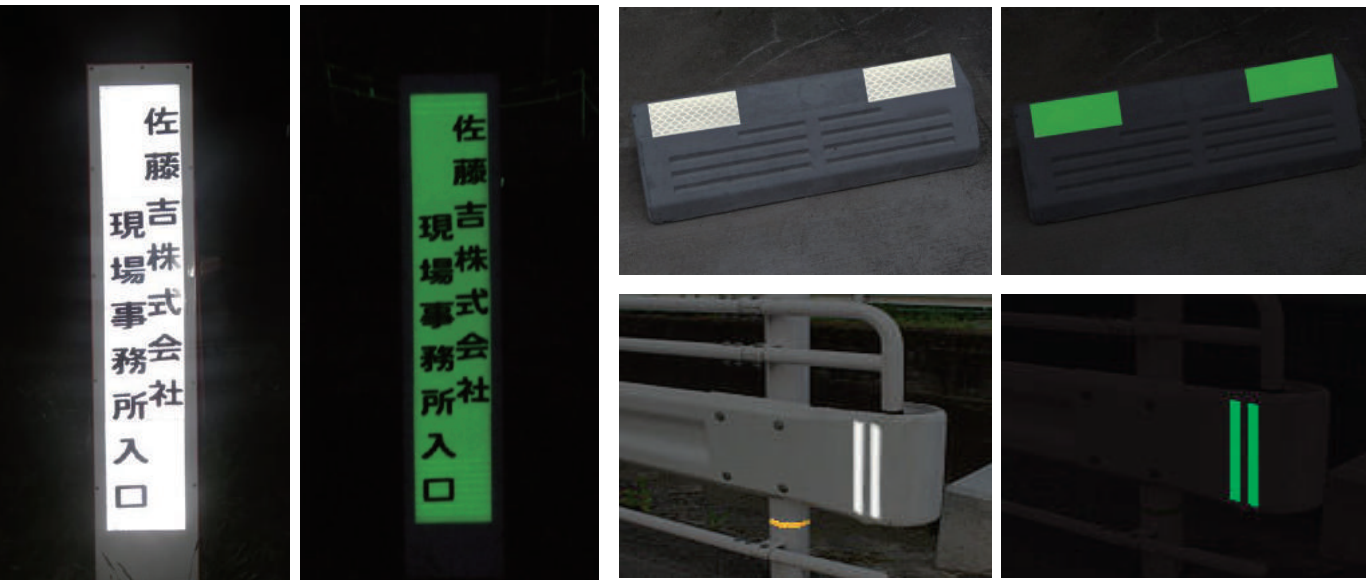
*Do not stick on any rough or jagged surfaces.

Reflective Luminous Film

Reflection		(Until: cd/lx/m ²)	Photoluminescence		(mcd/m ²)
Observation Angle	Entrance Angle		Elapsed Time	Luminance	
0.33°	5°	275	2 minutes	1,272	
0.33°	30°	134	10 minutes	283	
0.5°	5°	236	30 minutes	81	
0.5°	30°	137	60 minutes	36	

Size : 1,220 mm x 10 M / Thickness : 600μm±5μm *Measurement of the photoluminescence according to DIN 67510 Part4

Installation Example



Construction Examples

Railroads, U.S.A (New York, Chicago and Boston)



High Speed Railroad, Taiwan



Dubai Metro, Dubai



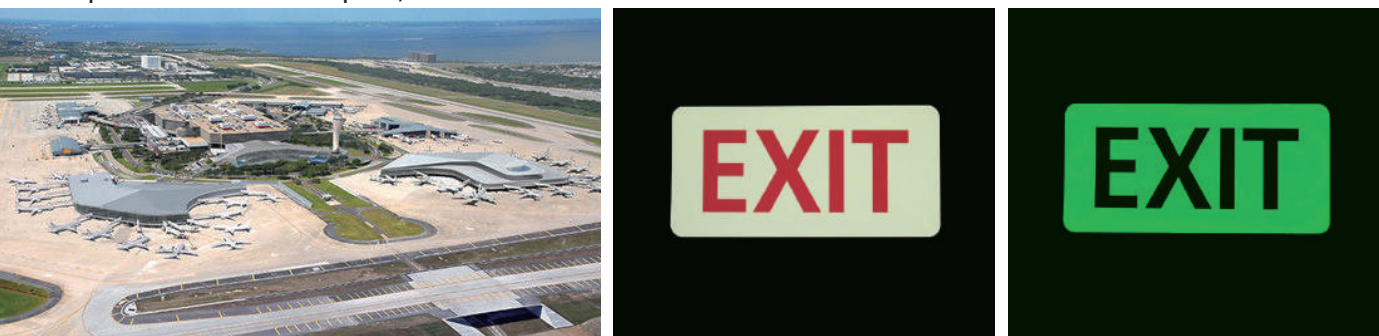
JR Tokai, Japan



Orlando International Airport, U.S.A



Tampa International Airport, U.S.A



Soekarno-Hatta International Airport, Indonesia

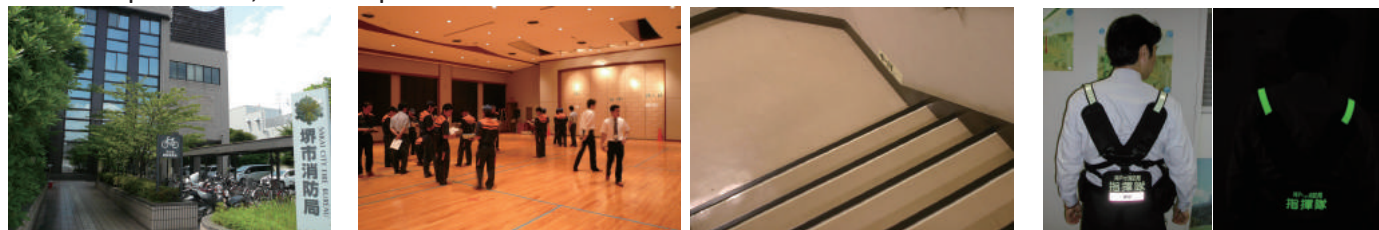


Kansai International Airport, Japan



Construction Examples

Fire Department, Osaka Japan



Seven-Eleven Japan



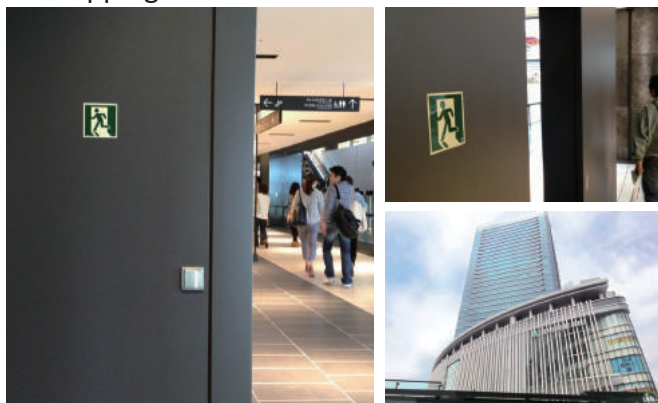
Tokyo Metro



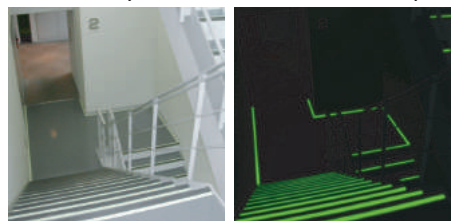
Convention Center, Tokyo



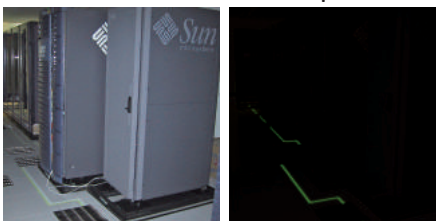
Shopping Mall



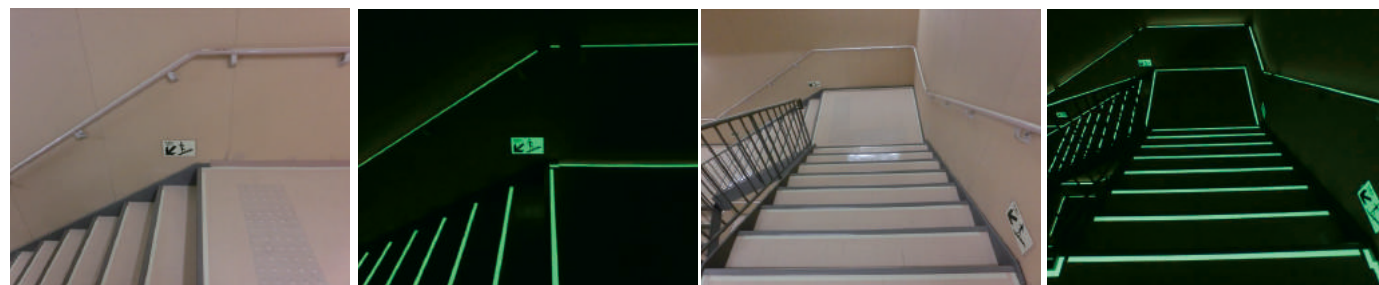
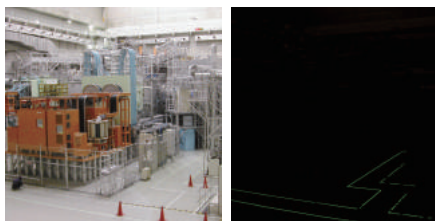
Ministry of Justice Government Japan



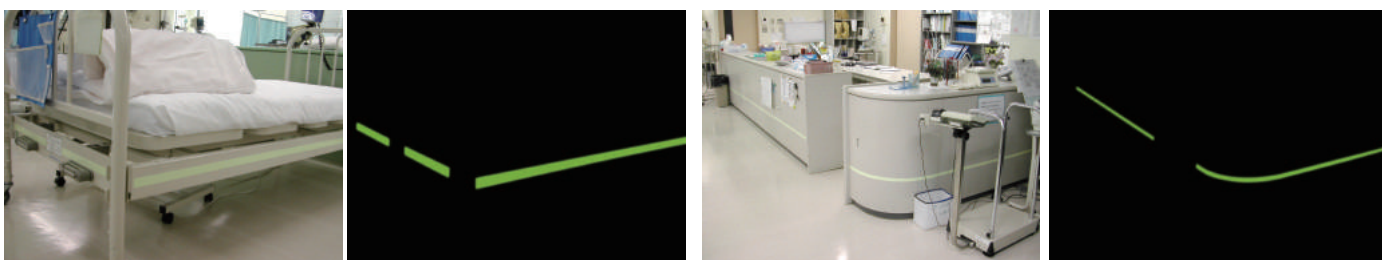
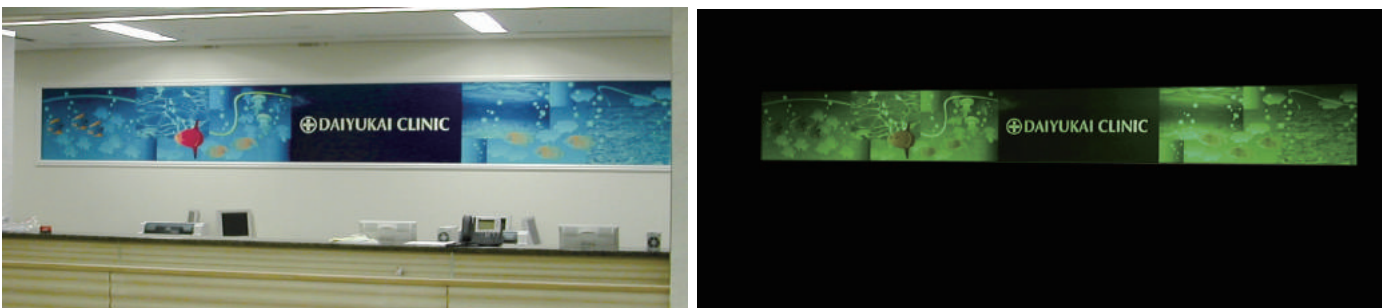
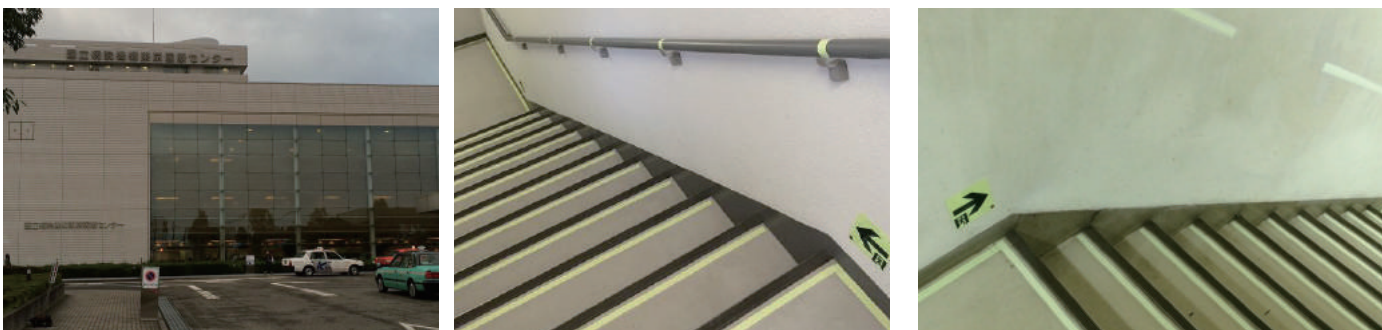
CTC seismic isolation platform



National Institute for Fusion Science



Medical Centers



Tsunami Evacuation Tower



Tsunami Evacuation Sign

