



# ECO-FRIENDLY!

## SLIP-RESISTANT PAVEMENT PAINT FOR MARKING OF PAVEMENT

# COMPANY INTRODUCTION

"We will put the priority on customers and environment, serving them with credit and trust, and become a company that recognizes the nation, society, business and nature as one common fate."



Company Name	Jihye Safety Co., Ltd.		
CEO	Duck-Bum Jang and Kyeong-suk Hong	Date of Establishment	2002.07
Business Type	Manufacturing : manufacturing of road marking paint and anti-slip pavement material Construction : painting work for structures		
Address	114, Wonmudong-gil, Dongsan-myeon, Chuncheon-si, Gangwon-do, 24410, Republic of Korea		
Tel	+82-33-261-4751	Fax	+82-33-261-4752
Email	ji2744@hanmail.net		

## HISTORY

2020	03	Certificate of Designation for an Excellent Company(G-PASS)
2019	09	Inno-Biz Certification(management innovation small and medium company)
	07	Acquisition of Excellent Green Biz Certification
	03	Certificate of Patent
	02	ISO9001, ISO14001 certification and R & D department certification
2018	08	Selected as a promising small business of Gangwon-do
	03	Main-Biz Certification (management innovation small and medium company)
2017	08	Acquisition of Clean Workplace Certification
	02	Passed risk assessment by KRAS
2016	12	Acquisition of Social Enterprise Certification
	07	Acquisition of product certification for the Korean Industry Standard
2015	01	Registered as a paint manufacturer
2002	07	Establishment of Jihye Safety Co., Ltd.

## PRODUCTS

### • Fusion-typed Plastic Paint (thermoplastics) :

It is a solvent-free paint made by mixing synthetic resin with white, yellow, blue and extender pigments. It is used to mark the lines of road surfaces, runways, etc. by heating and melting the material during construction.

### • Anti-slip pavement material :

This is a pavement material having improved slip resistance through surface treatment using aggregates, such as polymethyl methacrylate (PMMA), and silica sand. It is a product that has improved physical durability, such as adhesion and abrasion resistance, and chemical durability, such as salinity tolerance and alkali resistance. The product is a high-strength, high-functional, environmentally friendly product that can realize various colors, and is used for marking road hazard zones, bicycle roads, intersections, and child protection areas.



# COMPANY INTRODUCTION

## PRODUCTION FACILITY



Interior of factory



Interior of factory



R & D Lab



Manufacturing equipment



Roller



4 kinds of mixers



Filtering machine



Dissolver



Sealing machine



Hoist scale



Scale



## CERTIFICATION AND PATENT



ISO 9001



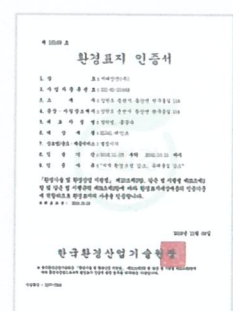
ISO 14001



G-PASS



Patent Certificate  
No.10-1964164



Eco-label certificate



Certificate of In-house  
R & D Dept.



Main-Biz



Clean Workplace  
Certificates



Certificate of Standards  
of Private Sectors



Excellent Green Biz  
Certification

# PAINT FOR MARKING OF PAVEMENT

## KS M 6080 CLASS 4 FUSION-TYPED PLASTIC PAINT



### Product Information

KS M 6080 Class 4 Fusion-typed Plastic Paint refers to solventless coatings which are made by mixing synthetic resins and extender pigments with a variety of colors(white and yellow), which is used for marking the lines on road surfaces or runways via heating and melting when doing road works.

### Features

- Easy to dry because it is used via heating and melting.
- Excellent in adhesive force, wear-resistance, alkali resistance, water resistance and weather resistance because of a non-solvent material.
- Environment-friendly because it uses a vinyl bag which plays a role of resin, which bans extra wastes from being generated, in addition to improvement of the properties of product.
- Keeps the brightness of the paint steady because wearing the upper of the paint's film expresses the performance of the intermix bead in the film.

### Usage

- Centerline, road boundary line, road outside line, overtaking ban line, pedestrian crosswalk line, stop line, parking line, characters & symbols on asphalt and concrete roads
- For road markings where retro-reflection is also required

### Work method

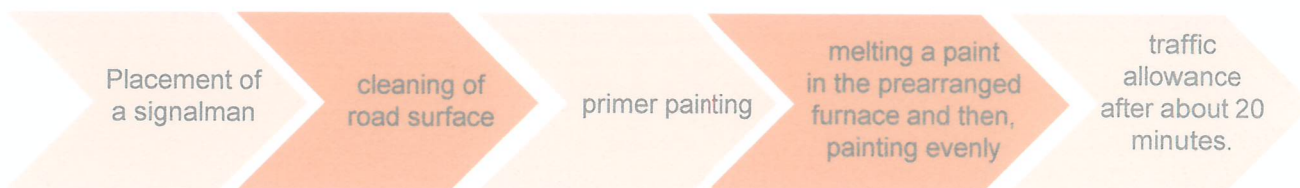
- Coat clean asphalt or concrete surfaces with fusion-typed (thermoplastic) primer ( $0.2\text{kg}/\text{m}^2$ ) using a spraying machine or roller (Use a corresponding primer product for each product)
- In 1 hour (or later) after primer coating at  $20^\circ\text{C}$ , apply fusion-typed (thermoplastic) paint evenly. At this time, melt paint (prepared in advance) in a melting furnace. Keep temperature at  $180^\circ\text{C}$  -  $200^\circ\text{C}$  with low-speed agitation.
- When you first put the substance in the empty dissolver, put the contents except for vinyl. When the content is dissolved, cut a plastic bag (about 30 cm), put about 1/3 of the product into the dissolver, and dissolve the substance together with vinyl.
- Prohibit the passage of all vehicles prior to painting. Approximately 20 minutes after painting work using fusion-typed (thermoplastic) paint is completed, vehicles can pass on the newly painted road.
- You can choose the automatic spray method or the manual spray method, but caution must be taken not to lower the working temperature below  $180^\circ\text{C}$ .



# PAINT FOR MARKING OF PAVEMENT

## KS M 6080 CLASS 4 FUSION-TYPED PLASTIC PAINT

### Working order



※ Please make sure that the operative emperature is not lowered to 180°C, irrespective of the manual or auto painting.

### Painting application case

- KS M 6080 Class 4 Fusion-typed Plastic Paint (Thermoplastic paint)



### Wear resistance test (luminance performance after wear)

KS M 6080 Class 4 Fusion-typed Plastic Paint (thermoplastic paint)

Traffic class	Color	Retro-reflection performance rating	
		When dried	When wet
P7 (4 million times) P6 (2 million times) P4 (500,000 times)	White	R5(RL≥300)	RW4(RL≥75)
	Yellow	R4(RL≥200)	RW4(RL≥75)
P3 (200,000 times)	White	R3(RL≥150)	RW4(RL≥75)
	Yellow	R3(RL≥150)	RW4(RL≥75)

※ The class and specification of glass beads can be changed without notice due to performance improvement or specification change. Please refer to the test report.

# PAINT FOR MARKING OF PAVEMENT

## KS M 6080 CLASS 2 WATER SOLUBLE PAINT



### Product Information

KS M 6080 (Class 2) is a product based on water-soluble acrylic polymer. Its physical properties include quick drying, weather resistance, abrasion resistance, and wash resistance. Since the product is based on low volatile organic compounds (VOCs), it is an environmentally friendly paint for road marking.

### Features

- It is an environmentally friendly product with low VOC levels that enables water washing and landfilling of its residues.
- A quick-drying product that dries soon even in high humidity conditions.
- Due to the thick dry film, the product has good durability against abrasion.
- At the same time that water evaporates, the particles adhere to each other in the form of honeycomb, resulting in good adherence to glass beads
- It has non-flammable and non-toxic character (less lead, chromium, mercury, and cadmium than regulated standards).It is an environmentally friendly product.
- This product conforms to KS M 6080 Class 2.
- It is a product with excellent wear resistance and weather resistance.

### Usage

- Centerline, road boundary line, road outside line, overtaking ban line, pedestrian crosswalk line, stop line, characters & symbols on asphalt and concrete roads
- For road markings where retro-reflection is also required

### Work method

- After checking the weather conditions, plan your work.
- If it rains within 8 hours after painting, the coating may be damaged.
- Prepare the painting work after checking whether a road surface is a proper condition.
- Apply the product with dedicated spray equipment.

### Painting application case KS M 6080 Class 2 Water Soluble Paint



### Wear resistance test (luminance performance after wear) KS M 6080 Class2 Water-soluble Paint

Traffic class	Color	Retro-reflection performance rating	
		When dried	When wet
P4 (500,000 times)	White	R5(RL≥300)	RW4(RL≥75)
	Yellow	R4(RL≥200)	RW4(RL≥75)

※ The class and specification of glass beads can be changed without notice due to performance improvement or specification change. Please refer to the test report



# SLIP-RESISTANT PAVEMENT

## Product Information

slip resistant pavement is a kind of pavement material which intends to enhance the slip-resistance via surface coating using the aggregates, like PMMA and silica. This product improved both physical durability including adhesive force and wear-resistance, and chemical durability, including salt resistance and, alkali resistance, and is able to express a variety of colors. The environment-friendly product is boastful of high-strength and high functionality.

This product is used in diverse application fields: Areas where slip resistance on the road surface is low, areas where the plane and vertical alignment of the road are poor, areas with a sharp inclination, school zones and bike roads.

Since this product enhances slip resistance of the surface in the abovementioned areas, it shortens the breaking distance of the car or bicycle, while preventing a person from being slipped.



## Features

- **Excellent workability and slip resistance**

Work at room temperature, shortened working time due to early realization of strength, high density in the gaps between aggregates and adhesive resin (since dense-graded aggregate is used), and high slip resistance are available.

- **Excellent adhesion and wear resistance**

Its excellent adhesion strength and low abrasion rate enable long-time anti-slip function

- **Prevention of material separation and aggregate separation**

Separation of aggregate is prevented as the resin and aggregate mixing method is used.

- **Excellent flatness and slip resistance**

Enabling excellent flat surface treatment (flatness) and slip resistance (40BPN / 55BPN or more, slip resistance is secured even in rainy weather)

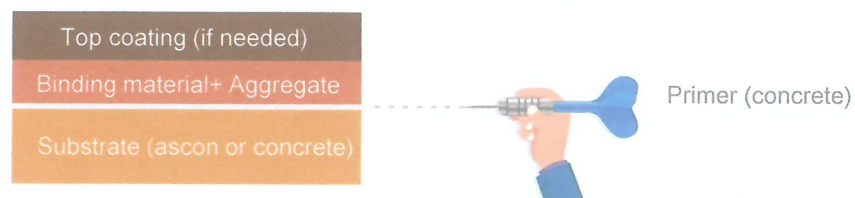
- **Excellent durability, salinity tolerance, alkali resistance**

There is no fear of separation of aggregate because of high adhesive strength. Its good wear resistance enables excellent durability. Its excellent chemical durability is maintained even after spraying calcium chloride in winter.

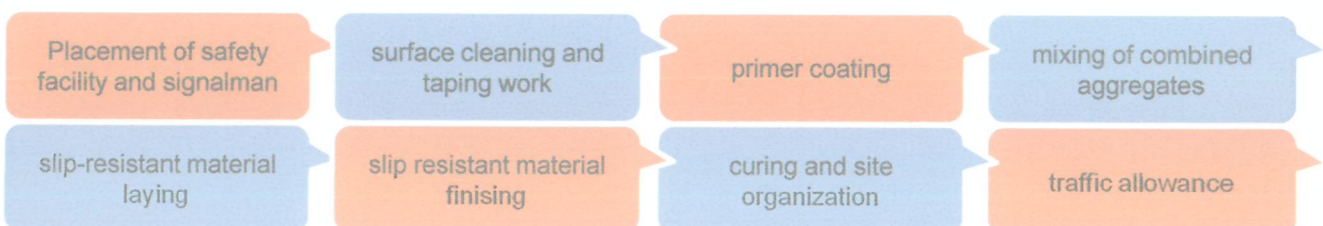
- **Environmentally friendly materials enabling harmony with urban and natural landscapes.**

The use of PMMA resin, aggregate (silica sand, PS ball) and inorganic pigments can realize your desired color and enables you to work in harmony with the surrounding landscape

## Integrated-type(silica-integrated) non-slip pavement material and coat-type surface material



## Working order



# SLIP-RESISTANT PAVEMENT

## Application field

- Where bright color is needed
  - Downtown parks
  - Special areas requiring color
- Dangerous section of a road
  - Slope, bend
  - Slippery part of an existing road
- Bicycle road and intersection
  - Bicycle road
  - Intersection
- Child protection zones, etc.
  - School zone
  - Green zone, silver zone

## Construction Case

Anti-slip pavement material + Coat-type surface material



## Products

	Item identification number	Standard Name / Class	Anti-slip pavement material(BP N)	Usage	Color
Anti-slip pavement material	20305469	JS-0001, t3.0mm / Class 1	55 or more	Intersections, child protection zone, senior citizen protection zone, steep curves, steep slopes, parking lots	Reddish brown
	23238227	JS-0003, t4.0mm / Class 1			Black
Coat-type surface material	23200617	JHS-MA-04, t1.0mm / Class 1	40 or more	Walkways, bicycle roads, trails, squares, parks	Reddish brown
	23200615	JHS-MA-02, t2.0mm / Class 1			White
					Green
					Others





**Jihye Safety Co., Ltd.**

114, Wonmudong-gil, Dongsan-myeon, Chuncheon-si, Gangwon-do, 24410, Republic of Korea

T. +82-33-261-4751 F. +82-33-261-4752 E. @ji2744@hanmail.net