

NP FLOORSHIELD 853 COLOUR FLOATING SAND

(SP-1105 COLOUR FLOATING SAND, for reference only)

Solvent-free, epoxy self-leveling Nippon Paint Floor Shield 853 Colour Floating Sand is a new generation composite decorative flooring material comprised of floating coloured sand and epoxy resin. The product allows free-mixing of one or more coloured sand to form a variety of decorative colours and patterns and textures. The product is elegant, resistant to a variety of situations, such as wear and tear, compression, and chemical corrosion, is anti-slip, as well as fire and water resistance. Aside from industrial floor, the product is also suitable for commercial and residential flooring. As compared to traditional coloured sand flooring, this product has simple and clear production processes and can eliminate various issues such as the lack of grouting and shelling.

Performance Characteristics

- Free colour mixing and calibration, rich colours, great decorative effect, elegant, strong texture, modern design style;
- High strength, brittle, with excellent wear resistance, anti-stress, impact resistance, excellent water-, acid- and alkaline-resistance;
- Smooth, clean and dustproof, with watertight surface capable to withstand high pressure washing or steam cleaning. Easy to clean and maintenance;
- Customizable surface, available in smooth, matte and anti-slip surface;
- Simple application process and low labor costs. One-time application and molding that is similar to regular epoxy self-leveling flooring.

Scope of Application

The product is suitable for venue with wear-resistant, anti-stress and impact resistance requirements for electronic communications, cigarette factory, food plants, health care, petrochemicals, textiles, furniture, stationery and other industries, as well as venue that requires seamless floor with stringent hygiene requirements. The product is also suitable for high-end entertainment, hotels, airports, subways, shopping malls, commercial buildings, convention centers, offices and laboratories.

Technical Data

Item	Technical Standard	Test Standard
Colour and appearance	Uniform colour, smooth surface	Visual Inspection
Drying time (at 25°C) hours	Surface	GB/T 1728-1989
	Full	GB/T 1728-1989
Compressive strength, MPa \geq	80	6.4.7 in GB/T 22374-2008
Adhesive strength (with cement), MPa \geq	2	GB/T 16777-2009
Hardness (Shore hardness, D type) \geq	75	GB/T 2411-2008
Impact resistance (50cm · kg)	No cracking or flaking	6.4.9 in GB/T 22374-2008
Wear resistance (750g / 500r, g) \leq	0.03	GB/T 1768-2006
Water resistance (168h)	No blistering, no peeling, slight discolouration, recovery after 2 hours	Method A in GB/T 1733-1993
Acid resistance (10% sulfuric acid, 48h)	No blistering, no peeling, slight discolouration	Method A in GB/T 9274-1988
Alkali resistance (20% sodium hydroxide, 72h)	No blistering, no peeling, slight discolouration	Method A in GB/T 9274-1988
Resistance to gasoline (120 #solvent gasoline, 72h)	No blistering, no peeling, slight discolouration	Method A in GB/T 9274-1988
Volatile organic compound (VOC) mass concentration, g / L	≤ 60	6.3.1 in GB/T 22374-2008
Mass fraction of soluble heavy metals, g / kg	Lead (Pb) ≤ 30	6.3.5 in GB/T 22374-2008
	Cadmium (Cd) ≤ 30	
	Chromium (Cr) ≤ 30	
	Mercury (Hg) ≤ 30	

Paint Protection Film and Coating Rate

Film Thickness (μm)	1500-3000
Coating Rate (kg/m^2)	2.0-4.0

Surface Preparation

For all new and old concrete floors, the concrete strength must be C25 or above. Surface stains and floating soil must be completely removed until a firm concrete surface is present. For all concrete that is loose or contaminated with any substance due to exposure to chemicals, the concrete should be removed until a firm concrete surface is present.

Old painted surface

Completely remove loose or incompatible old paint coatings until a firm concrete surface is present. Alternatively, a clean, dry, intact and compatible coating is also acceptable. If necessary, please contact Nippon Paint's technical department for further information.

Oil-contaminated surface

When oil contamination severely affects the adhesion of the floor coating onto the base surface, the oil-contaminated surface should be completely removed with the ground surface cleaned and polished. Please contact Nippon Paint's technical department for further information.

New concrete ground

Make sure the maintenance period of the ground has expired and the ground moisture content is less than 6%. It is critical to ensure that mobile sandblasting tools and grinding equipment can produce the appropriate concrete surface roughness.

Other surfaces

For surfaces made of other materials, please contact Nippon Paint's technical department.

For detailed documents pertaining to base surface treatment, please contact Nippon Paint's technical department for further information.

Application Conditions

Ambient temperature range: 10-35°C. The base surface temperature is at least 3°C higher than the air dew point temperature;

Ambient humidity range: <80%;

Ventilation conditions: Ensure that the application site is well ventilated and dustless. Avoid strong winds, as they may carry dust that will affect the final presentation.

Note: This product is not applicable for location that is exposed to direct sunlight and to relatively large ultraviolet light intensity.

Application Method

Use trowel for floor coating. At the start of the application, select a trowel with the appropriate blade length. For coating with a thickness of 3mm, a trowel with blade length of 4 to 5mm is selected. It is important to use needle-type exhaust rollers are used to pierce the coating during the application process to avoid the formation of air bubbles.

Application Parameters

Mixing ratio (weight ratio)	Nippon Paint Floorshield 853 Colour Floating Sand. Ratio of Component A: Component B = 6.5:1. Stir and mix well.
Pot life after mixing (25°C)	20 minutes, the higher the temperature, the shorter the useful life after mixing. It is not recommended to perform flooring if the ambient temperature is higher than 35°C.
Dilution	No dilution is required
Cleaning agent	SP-8301 Thinner 1
Drying time	Surface: 6 hours; Full: 48 hours
Recoating interval	The next working procedure can be carried out once the coating has been confirmed to be fully dry. Standard interval is 24 hours.

Note: Drying time is measured under standard conditions (25°C, 60% humidity) and should be used for reference only. Drying rate differs greatly under different temperature and humidity, and is affected by the thickness of the coating, ventilation, base paint and other conditions. Usually, when the temperature increases, the drying time decreases; when the temperature decreases, the drying time increases.

Packing Specification

Steel barrel.

FLOORSHIELD 853 Colour Floating Sand Component 101A: 26kg; FLOORSHIELD 853 Colour Floating Sand Component 103A: 26kg; FLOORSHIELD 853 Colour Floating Sand Component 105A: 26kg; FLOORSHIELD 853 Colour Floating Sand Component 107A: 26kg;

FLOORSHIELD 853 Colour Floating Sand Component B: 4kg;

Different packaging can be provided in accordance with the customer's needs.

Shelf Life

The shelf-life of the product in its original packaging state and stored according to storage conditions is 6 months from the date of manufacture.

Storage and Transportation

The coating material shall be sealed and stored in a dry, cool, well-ventilated condition, in the absence of high temperature and ignition source.

During transportation, ensure that the container is dry and sealed. The materials need to be placed firmly.

Health and Safety

Read the application instructions and warning labels on the packaging carefully before use.

Use in a well-ventilated condition. Open flames such as welding, grinding, smoking and other unspecified conditions are prohibited at the application site.

Since the coating material contains organic solvents, the product carries certain toxicity. Please wear gas masks and other protective equipment during application. Do not inhale paint mist, and avoid skin contact with paint. When the coating material comes in contact with skin, rinse thoroughly and use appropriate cleaning agent and soap. When the coating material comes in contact with eyes, rinse thoroughly with water and seek medical attention immediately.

Under normal application conditions, the dry coating is non-toxic. Please be rest assured.

Refer to the Material Safety Data Sheet (MSDS) for detailed toxicological, safety and first-aid information.

Disclaimer

The information contained in this product specification is based solely on the knowledge that we have acquired in the laboratory and in practice. However, due to the limitations of our knowledge, and the use of products are usually outside our control, we only provide quality assurance for the product itself. We reserve the right to modify this manual without prior notice. Please contact Nippon Paint to obtain the latest version of this instruction guide. For technical and safety instructions on how to use the product, please contact your nearest Nippon Paint office, the Nippon Paint's technical department or refer to Nippon Paint website for support.

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