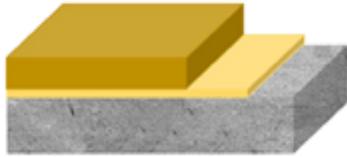


FLOORSHIELD UCREEED MD

Updated May'23



Description:

FLOORSHIELD UCREEED MD is 4 components, seamless, flow-applied self-smoothing water-based polyurethane modified concrete flooring topping system. It is designed in the thickness range from 3mm to 6mm for medium duty industrial application and resurfacing flooring application at matt and smooth finish.

After full cured, **FLOORSHIELD UCREEED MD** exhibits high physical and mechanical properties such as high impact resistant, good adhesion, wide spectrum of chemical resistance, withstands abrasive wear and thermal shock resistant.



Application Area:

FLOORSHIELD UCREEED MD is suitable for flooring application conditions requiring the maximum of hygienic, chemical resistance, health and safety where thermal changes arise from cool rooms to hot environments within its service temperature such as:

- Kitchen area
- Meat, fish, poultry processing
- Food and beverage processing and packaging plant
- Diaries, cheese and milk processing plant
- Sugar processing plant
- Pharmaceutical production
- Chemical process, containment areas and wash down rooms
- Loading and unloading area or warehouses



Product Feature:

- HACCP Compliance
- Antimicrobial, resists micro-organism (bacterial, fungi, mould, mildew) growth
- Low VOC, non-toxic and non-food tainting
- Excellent chemical resistance
- High impact resistance and durable
- Excellent abrasion and wear resistance
- High temperature resistance up to 100°C
- Easy clean and maintenance
- Seamless and hygienic
- Good adhesion
- Fast application and rapid return to service access

Product Type	Product Type	Standard Packsize*	Finishing	Color	Substrate
Water-Based PU Cementitious	Interior	Part A: 3kg/pail Part B: 3kg/pail Part C: 13.8kg/bag (Filler) Part D: 0.2kg/bag (color paste)	Smooth & Matt Finish	Cream, Buff, Red, Green, Grey, Silver Grey	Concrete

*Note: Available in 3 components, upon request: Part A: 3kg/pail; Part B: 3kg/pail; Part C: 14kg/bag (color filler)

Technical Data

Density	: 1.90 kg/L
Application temperature	: 5°C to 40°C
Service temperature	: 5°C to 80°C (3mm). ; -5°C to 100°C (6mm)
Theoretical coverage	: 1.90kg/m ² /mm
Pot-life	: 20 min @ 22°C ; 16 min @ 28°C
Recoat Time	: within 14-18 hours @ 28°C

Curing Time

	22°C	30°C
Human Traffic	24 hours	18 hours
Light Traffic	48 hours	24 hours
Fully Chemicals cured	7 days	6 days

Shelf life

In unopened container and good conditions with 10°C to 30°C.

Part A	Part B	Part C	Part D
9 months	12 months	12 months	18 months

Special Notes

1. Light yellowing of the floor surface exposed to UV may occur specially for light colour such as light grey without affecting its functionality.
2. It should not be applied on material or floor temperature below 10°C.
3. It is not designed for immersion.

Typical Technical Data

Properties	Test Method	Performance
Adhesive Strength, N/mm ²	ASTM C1583	> 2.0 (concrete failure)
Flexural Strength, N/mm ²	(ASTM C348)	26.5
Compressive Strength, N/mm ²	(BS6319:2)	57.7 (28 days) 51.5 (14 days)
Tensile Pull-off Strength, MPa		3
Static Modulus of Elasticity, N/mm ²		9400-9800
Water absorption, aged at 49 days, %	(ASTM C413)	0
Taber abrasion resistance, 1kg load/1000 revolutions, mg	(ASTM D4060-10)	38
Shore D Hardness		79-84
Water Vapor Transmission, g/hr/m ²	(ASTM E96)	1.23
Chemical resistance (Spillage conditions)	Dilute and concentrated organic acids (citric acids) and inorganic acids (hydrochloric, nitric, phosphoric, sulphuric acids), alkalis (including 50% sodium hydroxide), fats, oil, sugar, mineral oils, kerosene, gasoline, brake fluids, and most organic solvents.	

*All values given are subject to 5-10% tolerance

Recommended System

Primer	: AQUAPRIME EPOXY PRIMER – RED (150 µm)
Scratch Coat	: FLOORSHIELD UCREEED MD (1mm)
Finishing	: FLOORSHIELD UCREEED MD (3-6mm)

Application Method

Substrate Requirement	<ul style="list-style-type: none"> • Concrete or screed substrate compressive strength should be of minimum 30 N/mm² and adhesive pull off strength of 1.5 N/mm². • The moisture content of concrete shall be < 4% according to ASTM F2659, measured by Tramex meter. It shall be free from rising damp and must be waterproofed against negative ground water pressure.
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Surface Preparation

- The substrate must be thoroughly clean and dry without standing water, free from dust, grease, and oil. All the contaminants, previous coatings and impurity must be removed till bare substrate.
- Any cracks, honey combs, water leakage area should be repaired by Nippon Paint Repair System (for more detail, please refer to Nippon Paint Technical Department) before the flooring work proceed.
- The concrete surface should be flat and free from holes and undulations. Any holes and undulations should be resurfacing with Nippon Paint Scratch Coat System.
- The concrete design shall allow provisions for movement joints as required. In addition, provision shall be made for induced joints to allow any shrinkage of the concrete to occur along defined planes.
- The concrete surface shall be prepared by mechanical means such as shot blasting and concrete surface planer to suitable surface profile. Remove all loose material and dust by vacuum or mechanical means.

Mixing

- Shake Part A well before emptying it into a clean mixing container, together with Part B. Start mixing using a helical mixer at low speed (500rpm) for approximately 5 seconds.
- Add in Part C (13.8KG) and Part D (0.2KG) into mixture, increase the speed of mixer gradually to approximately 750rpm, for about 55 seconds, to achieve homogeneous mixture.
- Moving the mixer from top to bottom, and from side to side to ensure all components are well dispersed.

Application

- Apply a coat of AQUAPRIME EPOXY PRIMER (RED) onto concrete. If concrete surface is porous, apply second coat of primer to ensure the concrete surface is sealed to avoid the risk of out-gassing.
- **FLOORSHIELD UCREEED MD** shall be applied within its pot-life to a cured scratch coat of **FLOORSHIELD UCREEED MD** at 1mm nominal thickness.
- Placing **FLOORSHIELD UCREEED MD** shall be mixed and applied only by specialist flooring contractors who have been well-trained in the correct application procedures.
- Spread the mixed materials to thickness of 3mm to 6mm and consolidate with notched trowel or pin rake (set to the nominated thickness) to the correct depth as desired.
- Immediately release any trapped air by spike rolling. Aware of working time at working temperature to avoid cold joint.

Anchoring Grooves

Saw cut grooves at 5mm wide and 5mm deep at all perimeter edges, bay joints, columns, doorways, and drains for anchoring purpose

Maintenance

Regular cleaning maintenance, dry or wet mechanical scrubbing or hot flushing with detergents or detergent product will prolong the life of all resin floors, enhance the floor’s appearance and reduce the tendency to retain dirt, stains, and soiling tendencies. Direct stream cleaning is suitable for **FLOORSHIELD UCREEED HD** range. (Refer to **FLOORSHIELD UCREEED HD** technical datasheet)

Cleaning

Clean up equipment or tools with washing thinner such as acetone, xylene, thinner or other solvents prior to mixed materials harden. Small unreacted part B in container is immediately to be decontaminated with a 5% solution of washing soda (sodium carbonate) prior to disposal. After the material has set, it is impossible to get rid of and only wear off over time.

Storage and Transportation

This product should be stored in original container in a shaded or cool and adequate ventilation warehouse. The storage temperature should be 10-30°C. This product should be away exposure from rain, UV, sunlight, source of flame and heat. When transporting, care must be taken. Failure to comply with the recommended storage may result in considerable premature deterioration of the product and shorten its shelf life.

Environmental Conditions During Application

Apply temperature: 5-40°C. Do not apply when the surface to be applied is less than 3°C above the dew point. Temperatures should not fall below 5°C in the 24hours after application. Do not apply when the relative humidity exceeds 90%.

Safety Precautions

- Keep container tightly closed and keep out of reach children or away from food and drink.
- Ensure good ventilation during application and drying.
- When applying paint, it is advisable to wear eye protection.
- In case of contact with eye, rinse with plenty of water immediately and seek medical advice.
- Remove splashes from skin by using soap or water.
- Paint must always be stored in a cool place.
- When transporting paint, care must be taken. Always keep container in a secure upright position.
- Dispose off any paint waste in accordance with the appropriate Environment Quality Regulations.

Note

The above information is given to the best of our knowledge based on laboratory tests and practical experience. However, since we cannot anticipate or control the many conditions under which our products may be used, we can only guarantee the quality of the product itself. We reserve the right to alter the given without prior notice.