

FLOORSHIELD UCREEED TC Self-Smoothing Polyurethane Coating

Updated Jul'23

FLOORSHIELD UCREEED TC is a self-smoothing polyurethane cementitious floor coating, which designed as the finishing coat of coving, for FLOORSHIELD UCREEED MD / HD systems. It is seamless, high chemical and mechanical resistant, slip resistance, and thermal shock property. **FLOORSHIELD UCREEED TC** is also suitable to be used as a thin coat touch up over FLOORSHIELD UCREEED MD / HD systems.

Application Area:

With integration of FLOORSHIELD UCREEED MD / HD system, it 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:

- Hygiene hot water steaming clean.
- Antimicrobial, resists micro-organism (bacterial, fungi, mould, mildew) growth
- Low VOC, odourless
- High impact resistance and durable
- Excellent abrasion and wear resistance
- Service temperature between -5°C to 100°C
- Good chemical resistant against acid, alkaline, and organic solvent

Product Type	Product Type	Pack Size	Finishing	Colour	Substrate
Water-Based PU Cementitious	Interior	Part A: 1kg/pail Part B: 1kg/pail Part C: 1.8kg/bag (Filler) Part D: 0.2kg/bag (colour paste)	Smooth & Matt Finish	Cream, Buff, Red, Green, Grey, Silver Grey	Concrete

Technical Data

Density	: 1.65 kg/L
Application temperature	: 5°C to 40°C
Service temperature	: -5°C – 100°C
Theoretical Coverage	: 0.15kg/meter run/coat (approximate 120um per coat)
Number of coats	: 1 – 2 coats
Pot-life	: 35 min @ 15°C ; 30 min @ 25°C ; 25 min @ 30°C
Recoat Time (28°C)	: within 12 to 18 hours

Curing Time

	15°C	25°C	32°C
Human Traffic	36 hours	30 hours	24 hours
Light Traffic	48 hours	36 hours	30 hours
Fully Chemicals cured	7 days	6 days	5 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	9 months	12 months	24 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 is not designed for immersion.

Typical Technical Data

Properties	Test Method	Performance
Adhesive Strength, N/mm ²	ASTM C1583	> 1.50 (concrete failure)
Flexural Strength, MPa	ASTM C348	21
Compressive Strength, N/mm ²	BS6319:2	45.0 N/mm ² (28 days)
Tensile Strength, MPa		25
Growth of Aquatic Microorganisms	BS6920: Part 1:2000 Clause 6	< 2.39
Taber abrasion resistance, 1kg load/1000 revolutions, mg	(ASTM D4060-10)	38
Shore D Hardness		75-82
Water Vapor Transmission, g/hr.m ²	(ASTM E96)	1.23

Recommended System

Primer	: FLOORSHIELD UCREEED DP PRIMER
Coving	: FLOORSHIELD UCREEED COVING
Topcoat	: FLOORSHIELD UCREEED TC (1-2 coats)

Application Method

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| 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. |
| Surface Preparation | <ul style="list-style-type: none"> • 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. |

Anchoring Grooves

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

Mixing	<ul style="list-style-type: none"> Shake Part A well before emptying it into clean mixing container, followed by Part C and Part D. mixing for at least 2 minutes by using a suitable electrical stirrer (with 750watt High Power Mixer). Add in Part B into mixture, continue mix for at-least one minute until homogeneous mixture is achieved.
Application	<ul style="list-style-type: none"> Apply 1-2 coats of FLOORSHIELD UCREEED TC, on top of FLOORSHIELD UCREEED COVING, by roller or trowel. Make sure it is applied within pot-life.
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.

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 this product, 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.
- This product 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.