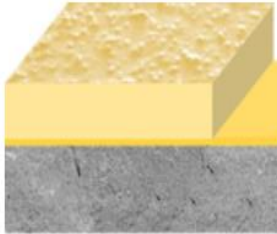


FLOORSHIELD UCREEED HD

Updated Sep'23

Description:

FLOORSHIELD UCREEED HD is a 5 component, single layer, seamless, trowel-applied, water-based polyurethane modified concrete flooring system. It is designed in the thickness range from 6mm to 12mm for heavy duty industrial application and resurfacing flooring application at matt and anti-skid texture finish.



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

Application Area:

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

- Kitchen and wet processing 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
- Cool rooms, freezers, chillers and oven rooms
- Loading and unloading area or warehouses
- Oily and slippery services area

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
- Excellent thermal shock resistance
- Seamless and hygienic
- Good adhesion
- Fast application and rapid return to service access
- Anti-skid finish for safety requirement



Product Type	Product Type	Standard Packsize*	Finish	Colour	Substrate
Water-Based PU Cementitious	Interior	Part A: 3kg/pail Part B: 3kg/pail Part C: 13.8kg/bag Part D: 0.2kg/bag Part E : 12kg/bag	Anti-skid & Matt Finish	Cream, Buff, Red, Green, Grey, Silver Grey	Concrete

*Note: Available in 4 components, upon request: Part A: 3kg/pail; Part B: 3kg/pail; Part C: 14kg/bag (color filler); Part E: 12kg/bag

Technical Data

Density	: 2.10 kg/L
Application temperature	: 5°C to 40°C
Service temperature	: -15°C to 130°C (6mm-9mm). ; -40°C to 150°C (9mm-12mm)
Theoretical coverage	: 2.1kg/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	Part E
9 months	12 months	12 months	18 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)	54.1 (28 days) 51.0 (14 days)
Tensile Strength, MPa		7
Static Modulus of Elasticity, N/mm ²		15490-17200
Water absorption, aged at 49 days, %	(ASTM C413)	0
Taber abrasion resistance, 1kg load/1000 revolutions, mg	(ASTM D4060-10)	83
Shore D Hardness		80-85
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 UCRED MD (1mm)
Finishing	: FLOORSHIELD UCRED HD (6-12mm)

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 substrate should be dry, and free from ground water pressure. • If moisture exceed 6%, thickness of FLOORSHIELD UCRED HD should be increased.
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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 substrate must be structurally sound. The substrate surface should be flat and free from holes and undulations. Any holes and undulations should be resurfacing with Nippon Paint Scratch Coat System.
 - The surface should be clean smooth. The substrate design shall allow provisions for movement joints as required. In addition, provision shall be made for induced joints to allow any shrinkage of the substrate to occur along defined planes.
 - The substrate surface shall be prepared by mechanical means such as shot blasting and substrate 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 and Part D into mixture, increase the speed of mixer gradually to approximately 750rpm, for about 10 seconds, to achieve homogeneous mixture.
 - Add in Part E, and mix to at least 60 seconds, moving the mixer from top to bottom, and from side to side to ensure all Part C, Part D and Part E 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 HD** shall be applied to a cured scratch coat of **FLOORSHIELD UCREEED MD** at 1mm nominal thickness.
 - Placing **FLOORSHIELD UCREEED HD** 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 6mm to 12mm and consolidate with notched trowel or pin rake (set to the nominated thickness) to the correct depth as desired.
 - Use short nap roller to roll lightly on the surface to bring up the resin.

Anchoring Grooves

Saw cut grooves at twice of thickness in wide and 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/sterilant 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 floors applied at 12mm thickness.

Cleaning

Clean up equipment or tools with 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 off 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