i-KRETE MD/HD

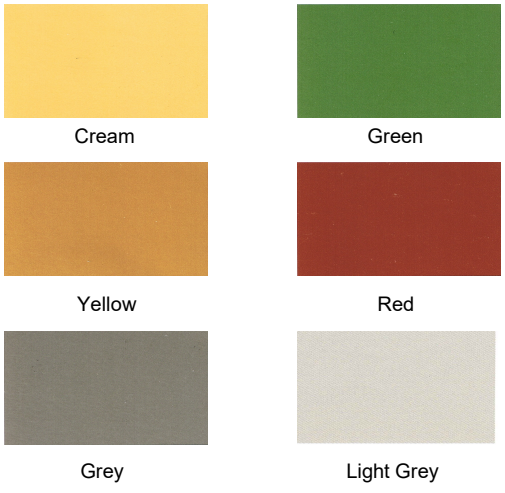
Technical Data

Product Description
i-KRETE MD/HD is a four component polyurethane self leveling system. The standard thickness for i-KRETE MD/HD is a nominal 3-4 mm. Attractive smooth matt colored floor finish.

Uses
i-KRETE MD/HD is formulated specifically for the food and beverage industry. To provide a good chemical resistance and hard wearing floor finish i-KRETE MD/HD can be used as a protective overlay on new floor or to repair floor.

Benefits
- Impact resistance.
- Seamless & hygienic finish, no crevices where dirt and bacteria can dwell.
- Meets the requirements of JIS Z 2801 : 2000 for the Antimicrobial Activity
- HACCP Certified product.
- Temperature resistant 0°C to 85°C
- Excellence chemical resistance
- Easy to clean, low maintenance requirement.
- High abrasion resistance
- Low odor during installation
- Smooth surface

Standard Color Chart



Color matching available with sufficient lead time and minimum order requirement.

Substrate
i-KRETE MD/HD is suitable for application over concrete, wood, tile or metal. Not recommended on asphalt or painted surface.

System Options
Cove Base
To provide for an integral seal at the joint between the floor and wall. Coving can be formed with i-KRETE Coving Mortar in conjunction with i-FLOOR Primer.

Packaging
i-KRETE MD/HD is packaged in 20 kgs./set, consist of:
Part A and Part B
Part C1 and Part C2 (Easily identifiable Pigment Pack)

Storage & Coverage
Each set of i-KRETE MD/HD will cover approximately as follow:
- 3.50 sq.m. for thickness 3 mm.
- 2.62 sq.m. for thickness 4 mm.

Substrate preparation
Proper preparation is critical to ensure an adequate bond. The substrate must be dry and free of grease, fats, oil and laitance. Totally enclosed shot blasting or scarification. The surface must be show open textured surface like a sand paper texture.

Priming
i-FLOOR Primer and i-KRETE MD/HD Scratch coat is necessary for applications of i-KRETE MD/HD over all substrates. The primer system must be cure to a tack-free state (at least 8 hrs.) before applying i-KRETE MD/HD

Mixing
- Add Part B and Part C2 (Pigment Pack) into mixing pail. Mixing with the blender for 30 seconds.
- Add Part A mixing with blender for 30 seconds and Part C1 into mixing pail. Allow the contents to mix until aggregate is thoroughly “wet out” for 30 seconds.

Pot life
i-KRETE MD/HD has working time of approximately 10-15 minutes at 30°C. The working time will vary depending on temperature.

Application
- Material must be use immediately after mixing.
- Use screed rake to distribute the mixed onto the floor.
- Use V-notched hand trowel pull the trowel through the material at right angles to the floor.
- Use a spiked roller to roll the material for allows air to escape and for the aggregate to be pushed down allowing liquids to come to surface.

FloorChem Asia Co.,Ltd.
688 M.7 Bangpoo-Mai,Muang Samutprakarn, Samutprakarn Thailand 10280 Tel. +662 323 9509 - 11 Fax. +662 136 4948
www.floorchemasia.com

Hardening Time
At 30°C allow:

- 12 hours for foot traffic.
- 24 hours for common industrial spillages and heavy traffic.
- 5 days for fully chemical cure.

Colour Stability
i-KRETE MD/HD is not colour fast and may change colour over time (exhibits a yellowing effect). Colour change depends on the UV light and heat levels present and hence the rate of change cannot be predicted. This is more noticeable in light colours and blues but does not compromise the product's chemical resistance or physical characteristics. Consult our Technical Department for UV light stable specification.

Environmental Considerations
The finished system is assessed as non-hazardous to health and the environment. The long service life and seamless, impermeable surface with perfect adhesion to the substrate reduce the need for repairs and maintenance.
Complies with LEED EQ Credit 4.2. requirements: VOC content < 50 g/l

Shelf Life
Store unopened in dry conditions at 25-35°C. Avoid excessive heat and do not freeze. The shelf life is 12 months in original, unopened container.

Cleaning up
Clean up mixing and application equipment immediately after use. Use toluene or xylene. Observe all fire and health precautions when handling or storing solvent.

Important
If any unusually long delay should arise, such as a break for lunch, it will be necessary to completely clean all mixing paddles and pails before ceasing operation. This is extremely important. Doing this will prevent the later contamination of the new batches of i-KRETE MD/HD with particles of partially cured material when the mixing operation starts up again after the break. The presence of such particles would seriously affect the troweling and finishing of the floor.

Caution
Avoid contact with Part A and B as they may cause skin and/or eye irritation. In case of contact, immediately flush area with copious amounts of clean water for at least 15 minutes. Seek medical attention. Applicators should cover hands with impervious gloves. Wash hands thoroughly with soap and water after use, and before eating, smoking, etc.

Physical/chemical characteristics

Compressive Strength (ASTM C-579)	>50 N/mm^2 after 7 days
Tensile Strength (ASTM C-307)	7 N/mm^2
Flexural Strength (ASTM C-580)	>18 N/mm^2
Hardness (ASTM C-2240/Shore D Durometer)	80-84
Abrasion Resistance (ASTM D4060 Taber Abrader)	0.30 mg loss per 1000 cycles (1 kg load using H22 wheels
Coefficient of Thermal Expansion (ASTM E 381, ASTM D-696, ISO 11359) (temperature range: -20.C to +60 OC)	α » 2.7 x 10^{-5} per ^{O}C
Bond strength (ASTM C-4541)	> 2.5 MPa (100% concrete failure)
Impact resistance (ASTM C-4226)	>140 in./lbs.
Flammability (ASTM D635-18)	Not Flammable
VOC contents (EN ISO 11890-2)	<11 g/ltr.
Water absorption (ASTM C-413)	0%
Slip Resistance Pendulum Slip Test	Dry 70 Wet 25

Temperature Resistance:

- 3 mm. -0°C to 85°C
- 4 mm. -0°C to 85°C

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