

TUFF-Krete MD

Medium duty polyurethane based flow applied, 3-4 mm. thick floor topping

Uses

TUFF-Krete MD is designed for application as a self levelling floor for concrete and other substrates. This system offers high resistance against impact, thermal shock, abrasion and chemicals.

Resistance to several organic chemicals used in the food industry makes the system suitable for use in various food processing industries. TUFF-Krete MD is ideal for use in:

- Meat, poultry and fish processing plants
- Bakeries & confectionery industries
- Pharmaceutical industries
- Textile manufacturing areas

Advantages

- Excellent mechanical properties
- High impact and abrasion resistance
- Resistant to thermal shock
- Temp. resistance at 4mm-60C; at 90C-occasional exposure only
- Resistant to intermittent live steam or hot water cleaning
- Good resistance to a wide range of chemicals

Description

TUFF-Krete MD is a polyurethane based self levelling system designed for application thickness of 3-4 mm. The system is formulated specifically to withstand thermal shocks, freeze/thaw cycles and chemical attack. The product is supplied as a four-component system (including colour pack), pre-weighed for on-site mixing. Standard colours include brick red, grey, yellow, cream and green.

Standard ColorCharts



Cream



Green



Yellow



Red



Grey

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

Properties

The values given below are typical figures achieved in laboratory tests.

Compressive strength (BS 6319) part 2, 1983	: 80 N/mm ²
Flexural strength (BS 6319) part 3, 1990	: 30 N/mm ²
Tensile strength (BS 6319) part 7, 1985	: 16 N/mm ²
Impact resistance (BS 8204)	: No visible damage or deterioration
Resistance to fungal growth (ASTM G21)	: Passes
Resistance to elevated temperatures (95°C)	: No flow, softening, chalking or cracking
	20°C 35°C
Pot life	: 15 minutes 12 minutes
Initial cure	: 20 hours 12 hours
Full chemical cure	: 7 days 4 days

Chemical resistance

TUFF-Krete MD will resist spillage of the following chemical solutions at 25°C:

Inorganic

Sodium Hydroxide 40%, Sodium Chloride (sat.)
Chlorine Water

Organics

Glucose syrup (sat.), Sugar solution (sat.),
Citric acid (10%), Tartaric acid (10%),
Nicotinic acid (10%)

Alcoholic beverages

Wine, Brandy, Beer

Carbonated beverages

Pepsi / Coca Cola, Mirinda / Fanta, 7 UP / Team

Electrochemical solutions

Copper Sulphate 1M

Zinc Sulphate 1M

Fruit juices

Grape juice, Orange juice, Fruit cocktail, Apple juice

Mango juice, Pineapple juice, Lemon juice

Fats

Vegetable Oil, Cheese, Butter

Sea Food

Fish (varieties), Prawns (varieties), Fish liquid, Fish blood

Processed fish oil

Poultry

Chicken, Egg (yolk + white)

Meat

Beef, Sheep blood

Fuels

Petrol, Diesel, Engine oil, Hydraulic oil, Brake fluid

Coolant

Cleaning Aids

Dishwashing liquid, Clorox, Jiff, Commercial detergents

Note : Please consult Greenfloor Innovations Corp. for additional chemicals, different concentrations or operating temperatures greater than 25°C.

All the above properties have been determined by laboratory controlled tests and success in use will be determined by the implementation of good housekeeping practices.

Instructions for use

Surface Preparation

The long term durability of any resin floor system is determined by the adhesive bond achieved between the flooring material and the substrate. It is most important therefore that substrates are correctly prepared prior to application.

Any damaged areas or surface irregularities should be repaired.

TUFF-Krete MD should be applied by specialist contractors who must follow the procedures laid down in the Product Application Guide. The following steps are involved in the application which would normally take place over a 2 to 3 day period.

- Thoroughly prepare the floor surface. Correct surface preparation helps to achieve the necessary adhesive bond between the substrate and the new floor.
- All existing expansion or movement joints should be followed through the new floor surface. Joints should be cleaned and prepared.
- Apply TUFF-Krete scratch coat at 1mm thick and allow to cure for 12 hours at 20°C or 8 hours at 35°C.
- Apply the TUFF-krete MD topping. The material is poured on to the primed surface and spread with a notched steel trowel to achieve a 3-4 mm. seamless topping.
- Using a spiked roller, remove air entrainment and allow to cure.
- Install the most appropriate Polyurethane joint sealant. This will depend on the anticipated movement accommodation factor and the end use of the new floor. For further advice, consult Greenfloor Innovations Corp.

Cleaning

TUFF-Krete MD should be removed from tools and equipment with xylene or toluene immediately after use. Hardened material can only be removed mechanically.

Maintenance

The service life of a floor can be considerably extended by good housekeeping. Regular cleaning may be carried out using a rotary scrubbing machine with a water miscible cleaning agent at temperatures up to 100°C.

Limitations

- TUFF-Krete MD should not be applied on to surfaces which are known to, or likely to suffer from, rising dampness, potential osmosis problems or have a relative humidity greater than 75% as measured in accordance with BS8203 Appendix A or by concrete/mortar moisture tester.
- It is not recommend acid etching as a method of floor preparation. If used, the method should be approved by the project consultant.
- TUFF-Krete MD should not be applied to asphalt, weak or friable concrete, unmodified sand/cement screeds, PVC tiles or sheet. For information on the suitability of other substrates, consult Greenfloor Innovations Corp.
- TUFF-Krete MD should not be installed at temperatures below 10°C or above 40°C.
- Not suitable for service temperatures below 0°C.
- TUFF-Krete MD results in colour change when in contact with oxidising acids.

Technical support

Greenfloor Innovations Corp offers a comprehensive range of high performance, high quality flooring, jointing and repair products for both new and existing floor surfaces. In addition, the company offers a technical support package to specifiers, end-users and contractors, as well as on-site technical assistance.

Packaging

Supply

TUFF-Krete MD : 20 kg. packs

Coverage

TUFF-Krete MD : 3.5 m²/pack @ 3 mm thickness

Note: The coverage figures given are theoretical - due to wastage factors and the variety and nature of possible substrates, practical coverage figures will be reduced. Typically an additional 10% should be allowed for surface irregularities and wastage although this will vary with site conditions.

Storage

Shelf life

All products have a shelf life of 6 months if kept in a dry store in the original, unopened packs.

Storage conditions

Store in dry conditions between 5°C and 30°C, away from sources of heat and naked flames, in the original, unopened packs. If stored at high temperatures the shelf life will be reduced.

Disposal

Spillages of component products should be absorbed onto earth, sand or other inert material and transferred to a suitable vessel. Disposal of such spillages or empty packaging should be in accordance with local waste disposal regulations.

For further information, refer to the Product Material Safety Data Sheet.

Precautions

Health and safety

TUFF-Krete MD should not come into contact with the skin and eyes, or be swallowed. Ensure adequate ventilation and avoid inhalation of vapours. Some people are sensitive to resins and hardener.

Wear suitable protective clothing, gloves and eye protection. If working in confined areas, suitable respiratory protective equipment must be used.

The use of barrier creams provide additional skin protection. In case of contact with skin, rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent.

In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed seek medical attention immediately - do not induce vomiting.

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ENERGY EFFICIENT AND SUSTAINABLE SOLUTIONS

19-A No. 100 M. Conception St., Brgy. Buting, Pasig City