Ducrete MF

TECHNICAL DATA SHEET (TDS)

4 Component heavy duty polyurethane hybrid flooring screed

DESCRIPTION

DUCRETE MF is a 4-component, self-smoothing and seamless polyurethane concrete flooring system. It has excellent mechanical and chemical resistance properties. It is resistant to organic acids, dilute mineral acids, vegetable and animal fats, petroleum oils and solvents. It is suitable for use in conditions of a wide temperature range between -5°C to +70°C (3 mm); -15 to +70 (4 mm) or as broadcasted system up to +90°C (5–6 mm). Ex-posed to UV and weathering DUCRETE MF is not color stable.

RECOMMENDED USE

- Pharmaceuticals
- Food processing & Beverages
- Hospitals & Warehouses
- Chemicals & Engineering's
- Hotel, Cafeteria, Kitchen
- Textile & any kinds of Industries
- Any kinds of heavy duty load areas

FEATURES AND BENIFITS

- Good chemical resistance
- High impact and abrasion resistance
- High thermal shock resistance
- Wide service temperatures -15°C - +90°C
- Hygienic surface
- Complies to HACCP requirements
- Odorless, non-tainting to food
- Solvent free
- Low emission

PERFORMANCE TEST DATA

Compressive Strength (DIN EN ISO 196/ASTM C109)	>50 N/mm^2
Flexural strength (DIN EN ISO 196/ASTM C109)	>20 N/mm^2
Hardness Shore-A (EN ISO 868)	approx. D 80 (28d)
Fire classification (EN 13501-1)	Bfl-S1
Water absorption coefficient (EN 1062-3)	w < 0.01 kg/m^{2}h$^{0.5}$
Solids content	99 %
Density (23°C)	1890 kg/m3
Viscosity (23°C)	7000 mPas
Packaging size (4-component)	20.00 kg (A+B+C+ Colour paste)
Storage Protect from frost!	Dry at 10–30°C, avoid direct sunlight

TECHNICAL DATA

Working time (23°C)	approx. 10-15 minutes
Application temperature:	10 – 30°C (min. 3°C above dew point)
Permitted rel. air humidity*	min. 40 % - max. 90 %
Material consumption (PU mortar)	1.9 kg/m2 per mm 5.7 – 7.6 kg/m² for 3 -4 mm
Over coating (23°C)	within 12 - 24hours
Cure time to withstand*: Foot traffic Heavy traffic Exposure to chemical	after 12 – 20 hours after 2 days after 7 days

APPLICATION

Please note our general processing guidelines for DUCON systems. DUCON systems should only be processed by trained personnel.

Surface Preparation:

Concrete substrate shall be firm, clean and dry with a surface pull-off strength of minimum 1.5 N/mm². The substrate quality should be a monolithic reinforced concrete with min. C25/30 according to EN 206-1,

Statement of Responsibility (Disclaimer)

The technical information and application advise are based on present state of our best scientific and practical knowledge. As the information herein of a general nature, no assumption can be made as to a products suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

(except light-weight concrete), or cement screeds in the composite, minimum CT-C30-F4, minimum layer thickness 25 mm, for other substrate see our general application guidelines for DUCRETE concrete systems.

DUCRETE MF is always applied on a prepared surface. Remove surface laitance, contaminants, coating, curing compound and all weak and loose materials. Prepare concrete surface by diamond grinding, scarifying or captive shot blasting to provide the appropriate surface pro-file for optimum mechanical keying. Cut grooves of 3 mm width and 5 mm depth minimum just inside the perimeter of the area and around drains, columns and protrusions.

Self-Smoothing Coating / Wear Coat:

Apply the self-levelling coat DUCRETE MF with a notched trowel or spatula or with a notched squeegee in the required layer thickness onto the primed surface. The entrapped air must be de-aerated with a spike roller. The consumption is approx. 5.7–7.6 kg/m² depending on the required layer thickness.

After curing remove not bound QS by sweeping and vacuum cleaning. If low slip resistance is required grind surface slightly before vacuum cleaning.

Procedure:

Before starting the application, the material temperature must be close to the site conditions but should have min. 10°C.Dispense the color paste into Component A. Mix to disperse the color paste (1 minute) until homogeneous, add component B and mix (1.5 to 2 minutes) until homogeneous using an electric stirrer with a speed of min. 300 rpm.

Over Coating:

Over coating should be carried out within 24 hours after application of DUCRETE MF. If longer than 24 hours, it is necessary to lightly grind the surface before over-coating is carried out.

STORAGE/ SHELF LIFE

Store under cover, out of direct sunlight and protect from extremes of temperature. Shelf life is at least 2 years when stored as above. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging

PRECAUTION

Care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs (which can also be tainted with vapor until product fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Information relating to the safe handling of this product can be found in the Material Safety Data Sheet. Local regulations concerning the safe handling of epoxy resin based coating materials must be observed. Suitable protective clothing including suitable eye protection must be worn.

Statement of Responsibility (Disclaimer)

The technical information and application advise are based on present state of our best scientific and practical knowledge. As the information herein of a general nature, no assumption can be made as to a products suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.