CEMFIX 511 – Rapid Curing, Shrinkage Compensated, CT Screed Binder

CEMFIX 511 is a specially formulated hydraulic binder for the production of rapid drying, shrinkage compensated floor screeds. By simply blending with a suitable screed, sand and water, drying times are significantly reduced (compared to traditional sand & cement screeds) to just 3 days. This screed can be used for bonded, unbonded and floating applications and can be covered with floor finishes such as PVC, lino, tiles, wooden floors, parquet and laminate flooring. The product is ideal for floors with continuous traffic such as supermarkets, airports and hospitals, as the screed has a high chemical and mechanical esistance.

- Rapid Curing / Drying
- High Yield
- Early Trafficking
- Hand & Pneumatic Pump Application
- High Mechanical and Chemical Resistance

Field Of Application

CEMFIX 511 is designed for use an underlayment in commercial and domestic buildings. CEMFIX 511 can be applied with an pneumatic mixer pump. CEMFIX 511 does not contain casein or other protein bearing additives that develop ammonia during the curing process.

Working Instructions

Light ventilation in the working area is necessary, however windows and door openings must be closed sufficiently to avoid draughts during and for 3 days after application. During application, and for at least 1 week afterwards, the substrate and ambient temperature should not fall below +10°C or rise above +25°C.

- Bonded screed thickness: min. 10mm
- Unbonded screed thickness: min. 35mm
- Floating screed thickness: min. 40mm

Substrate

CEMFIX 511 screed should be laid on a well-prepared subfloor. Dust, laitance, grease or other weak materials must be removed. In case of rising damp or non presence of a damp proof membrane, place screed onto polythene (unbonded) or apply a liquid DPM, prior to application of screed.

Preparation and Priming

The surface to be treated must be hard, sound and free from surface contamination. All dust should be vacuumed from the surface. Concrete, laitance and old coatings should be removed mechanically e.g. by shot blasting, scabbling or scarifiying. Concrete contaminated by oil or grease may require flame gunning and/or treatment with a proprietary degreaser. Prepare the substrate using Smet Floor Primer as directed. Dry and very porous substrates must be primed twice.

Mixing

CEMFIX 511 can be mixed in an pneumatic mixer pump or bell mixer with 175 - 200kg of suitable sand/aggregates (0-8mm) and 5.6 - 6.7% of clean water (depending on moisture content of the sand) for 2 - 4 minutes. The mixed material should be used and levelled within 30 minutes.

Application

For bonded applications a bonding slurry is recomended. For example, mixing Smet Universal Floor Primer 1:2 with OPC and application by brush, prior to placement of screed. The screed must be applied on a sub floor that has a DPM installed, otherwise the screed has to be installed unbonded or placed onto a liquid DPM. When the screed is installed unbonded or floating it is essential to install 8mm perimeter insulation.

General Information

The general information provided in the present technical description, application guidelines and other recommendations, is based on research and experience. However, the client is obliged to determine whether the products are suitable for use. The characteristics given here are average values, obtained at 20°C and 50 RH and were drawn up according to the current state of technology. As of publication, the present technical descriptions will replace all previous ones. Please take into account different local conditions such as ventilation, floor temperature and humidity. Do not process at temperatures below +5° C. High humidity and low temperatures slow down the constriction and the curing. Do not add other products.

Safety

Caution. This product contains cement, which becomes alkaline when wet and may cause skin irritation. Use goggles, gloves and protecting cream. Avoid prolonged contact with skin. Avoid inhaling the dust. Wash affected area with warm water and soap. Wash eyes thoroughly and consult a physician. Do not ingest. See Health and Safety Data Sheet for further information.

Please note: No responsibility can be taken by Smet Building Products Ltd. for any defects or deficiencies in the completed work arising from any failure to comply with recommended practice in applying Cemart products or resulting from any failure to comply with the manufacturer's instructions or other instructions issued in respect of other elements of the system being installed.

Technical Information CEMFIX 511

Screed Specification: Water Content Approx. 6% (50% RH and 20° C)	
Maximum Thickness	75mm
Minimum Thickness	10mm (bonded)
Use (External Use)	Yes
Use (Internal Use)	Yes
Compressive Strength (28 days)	>14 N/mm² (7 days) >15 N/mm² (28 days)
Flexural Strength (28 days)	>2 N/mm² (7 days) >3 N/mm² (28 days)
pH Value	11.5
Shrinkage (28 days)	< 0.65 ‰
Flow Rate	Semi Dry
Hardening Time (before foot traffic)	12 hours
Hardening Time (final covering)	3-4 days (depending on thickness)
Recommend water content	5.6 - 6.7%
Pot life	Maximum 30 minutes depending on ambient conditions
Reaction To Fire	A1
Mix Ratio	1 bag (25kg) to 175-200kg screed sand (0-8mm)
Drying Time - 1 day	Moisture Content: <2.5% CM
Drying Time - 3 days	Moisture Content: <2.0% CM
Drying Time - 7 days	Moisture Content: <1.6% CM
Drying Time - 8 days	Moisture Content: <1.4% CM

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