

SHRINKAGE COMPENSATED MORTAR FOR STRUCTURAL REPAIR

PRODUCT DESCRIPTION

CEMPAC® 527 repair mortar is a special formulated dry mixed mortar based on Low Alkali Portland Cement with fine sand and polymers. It is developed for repair works on damaged concrete constructions. The material has a thixotropic consistence and a very slow thermal reaction, which makes it possible to use CEMPAC® 527 in big constructions without problems caused by high temperature. A higher ambient temperature gives a quicker curing time.



APPLICATIONS

- Repair works on damaged concrete structures (eg. cavities and damaged corners)
- Can be applied to both vertical and horizontal surfaces
- Due to the very slow thermal reaction this mortar can be applied in very large, massive structures, even at higher temperatures
- There is no specific limit for thickness

TECHNICAL DATA

Water content 16%. 50% RH at a temperature of 20°C during hardening process

Flexural strength	≥ 5 N/mm ² after 28 days
Compressive strength	≥ 50 N/mm ² after 28 days
Adhesion to underfloor	≥ 2 N/mm ²
Volatile organic compound value	free of ammonia and formaldehyde
Grain size	max. 1,0 mm
Free shrinkage	< 0,4‰ (measured at 50% RH, after 28 days)
Ph-value	approximately 11,5
Dry powder density	approximately 1,7 g/cm ³
Wet volume weight	≥ 2,3 – 2,4 g/cm ³
Water stability	water-stable
Material consumption	approximately 1,75 kg per mm thickness/m ²

TECHNICAL INFORMATION

Water addition	16% (4 litres/25 kg bag)
Minimum substrate temperature	+6 °C
Open time	30 – 50 minutes, depending on the ambient temperature
Hardening time	45 min – 2 hours jelying starts, depending on the temperature 2 – 3 days before removing formwork, depending on the temperature
Storage	Six months in dry conditions, max. 20°C and 50% RH

SUBSTRATE PREPARATION

CEMPAC® 527 must be applied onto a well-prepared, hard, solid surface, free of contamination. Dust, cement residues, greases or other soft materials (such as asphalt) must be removed. Ways of doing this include shot-blasting, sand-blasting or scarification. Concrete contaminated by oil or grease must be treated first with flame gunning and/or an appropriate degreasing agent. To optimize adhesion, it is possible to moisten the substrate slightly, or to apply a CEMPRIME adhesive layer. As soon as the CEMPRIME becomes tacky, the CEMPAC® 527 can be applied.

MIXING

CEMPAC® 527 can be mixed using an electric drill with a mixing rod. Use only potable water with a maximum temperature of 20 °C for mixing: 4,0 litres (16%) per 25 kg bag. First add the calculated amount of water to the bucket, and then the amount of dry mixed powder until the right workability is achieved. Do not mix more material than can be processed in 20-25 minutes. At high temperatures in the summer time, the material has an open time of about 15 – 25 min. When the material begins to harden, do not mix it again, and do not add any water..

PERFORMANCE

CEMPAC® 527 is applied and finished with a manual spatula or bricktrowel. For smaller applications a soft rubber spatula can be a good tool. For damaged corners use a mould to prevent the material to flow away. If filling up bigger cavities, it is recommended to fill up with material so it creates a small bulge. After the material has hardened for approx. 30 min, use a moist trowel to smooth the surface. If there is need to have a smooth surface cut the bulge with

a sharp edged spatula after approx. 60 min. curing time. Use a clean wet sponge to give a smooth looking surface.

CEMPAC® 527 contains a small but important amount of polymers that increase the adhesion to the substrate. Hardened material is particularly hard and very difficult to cut. Do not work at temperatures below +5°C.

CLEANING

All tools and equipment should be cleaned immediately with water.

HEALTH AND SAFETY



Contains cement. Wet cement is corrosive. Protect your eyes and avoid prolonged contact with the skin. Keep out of reach of children. For further information, consult the CEMPAC® 527 safety sheet.

Transport: not a classified product.

IN GENERAL

The general information provided in this technical description, application advice, and other recommendations are based on research and experience. Users themselves must determine whether the products are suited for their specific application. The specified properties refer to average values, obtained at 20°C and 50% RH and prepared according to the current state of the art. Written and oral recommendations in accordance with our general delivery terms are entirely free of obligation.

These technical descriptions supersede all previous ones.

Please take account of different local conditions, such as ventilation, floor temperature, air humidity,...

High air humidity and low temperatures delay the bonding and hardening; high temperatures accelerate them.

Consult our website www.cemart.eu to download the most recent version of the technical information sheet.

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(1) See decision of the commission 96/603/EC

NPD : No Performance Declared