

FAST-SETTING MORTAR FOR REPAIRING HEAVILY LOADED “FLOORS”

PRODUCT DESCRIPTION

CEMPAC® 540 is a fast-setting repair mortar based on high-quality aluminium cement, aggregates and polymers. The higher the temperature, the shorter the hardening time. The hard aggregate makes this mortar completely wear-resistant. CEMPAC® 540 mortar is easy to apply, and has very high compressive strength and low shrinkage.

APPLICATIONS

- Quick repair of industrial floors, when it is important that extra heavy loading is possible again after a few hours.
- Layer thicknesses of 8 to 100 mm possible in one operation.
- Quick repair of roads, when it is important that very heavy traffic is possible again after a few hours.



TECHNICAL DATA

Water content 9% 50% RH at a temperature of 20°C during hardening process

Flexural strength	≥ 5 N/mm ² ≥ 11 N/mm ² after 30 days
Compressive strength	≥ 25 N/mm ² after 3 hours, ≥ 50 N/mm ² after 28 days
Adhesion to underfloor	≥ 3 N/mm ²
Volatile organic compound value	free of ammonia and formaldehyde
Free shrinkage	< 0,8‰ (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 (expansion under water < free shrinkage)

TECHNICAL INFORMATION

Water addition	9% (2.25 litres/25 kg bag)
Minimum substrate temperature	+6 °C
Open time	10 – 25 minutes, depending on the ambient temperature
Hardening time	3 – 4 hours before light traffic, depending on the temperature 24 hours before heavy traffic, depending on the temperature
Storage	Six months in dry conditions

SUBSTRATE PREPARATION

CEMPAC® 540 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 first must be treated with flame gunning and/or an appropriate degreasing agent. To optimise adhesion, it is possible to moisten the substrate slightly, or to apply a CEMPRIME AC adhesive layer. As soon as the CEMPRIME AC becomes dust dry, the CEMPAC® 540 can be applied.

MIXING

CEMPAC® 540 can be mixed with a concrete mixer, just as normal dry concrete. Use some potable water with a maximum temperature of 20 °C for mixing: 2,25 litres (9%) per 25 kg bag. Once the material is mixed, it must be used within 15 minutes. When the material begins to harden, test it, then do not mix it again, and do not add any water.

PERFORMANCE

CEMPAC® 540 is used just like standard concrete. The flow of the material is good so that a smooth surface can be obtained with a little work with a trowel. Apply 8 to 100 mm thick in one operation. The normal thickness is 8-30 mm. If heavy loading is expected, then make the layers no thinner than 15 mm. Depending on the temperature during hardening, there can be heavy traffic over the renovated floor after 3 to 4 hours. If there are high outside temperatures, the processing time is 15 minutes at most. It is important not to mix too large a volume, so that there is sufficient time to apply the material before hardening begins.

CEMPAC® 540 contains a small but important amount of polymers that increase the adhesion to the substrate. Semi-hardened material can be completely shaped or cut so that the necessary applications can be performed without problems. Hardened material is particularly hard and very difficult to cut. Do not work at temperatures below +5°C.

CLEANING

All tools must 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® 540 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.
