



CEMENT ALL

Multipurpose Repair Mortar



Status 10/2021

**mineral, multipurpose fast-setting repair mortar
for layer thickness from "0" - 100 mm**

DESCRIPTION

Rapid Set CEMENT ALL is a mineral, multipurpose fast-setting repair mortar based on special cement technology. Ideal where rapid strength, durability and low shrinkage setting are required. CEMENT ALL can be applied in thickness from nearly "0" - 100 mm. Initial set after 15 minutes, ready for stress in approx. 1 hour. CEMENT ALL is similar in appearance to Portland cement construction materials and may be processed in similar methods.

APPLICATION

CEMENT ALL is a multipurpose fast-setting repair mortar for general concrete repair, dowelling and anchoring, injection, industrial grouting, formwork and highway repair. Indoors and outdoors, also in wet areas.

SUSTAINABLE CONSTRUCTION

The use of CEMENT ALL reduces the CO2 footprint, increases the energy and resource efficiency and conserves natural resources. The production of Rapid Set cement generates 30 % less CO2 emissions than conventional Portland Cement. For further information (e.g. LEED values) contact KORODUR.

PROPERTIES

- multipurpose
- repair and new construction
- horizontal and vertical application
- layer thickness "0" - 100 mm
- fast-setting, ready for stress only approx. 1 hour after final set
- high-strength
- low tension
- mineral
- durable
- frost/de-icer resistant
- sulfate resistant
- chloride-free
- resistant against many different chemical attacks
- excellent bond: directly, without bonding compound
- curing with water only
- indoors and outdoors
- improved shelf-life

TECHNICAL DATA

| | | |
|--|--|--|
| Quality | C55/67 | |
| Grain size | 0 - 1 mm | |
| Colour | light grey | |
| Standard layer thickness *in the first working step depending on the chosen consistency | floor ceiling / overhead wall | 10 - 100 mm 5 - 10 mm* 5 - 15 mm* |
| Setting time with reference to DIN EN 196-3 | initial set final set | approx. 15 minutes approx. 35 minutes |
| Ready for stress | after approx. 60 minutes | |
| Ready for covering The readiness for covering is independent of the layer thickness and is influenced by the ambient temperature and air humidity. It is recommended to check the residual moisture by a suitable measurement. | vapor-permeable coverings (e.g. tiles, vapor-permeable paints) | after approx. 2 hours |
| | diffusion-proof coverings (e.g. parquet, bitumen-waterproofing) | after approx. 16 hours |
| Compressive strength [N/mm ²] DIN EN 1015-11 | after 60 minutes after 180 minutes after 7 days after 28 days | > 20,0 N/mm ² > 31,0 N/mm ² > 41,0 N/mm ² > 62,0 N/mm ² |

| | | |
|---|--|--|
| Flexural strength [N/mm ²] DIN EN 1015-11 | after 60 minutes after 180 minutes after 7 days after 28 days | > 6,0 N/mm ² > 8,0 N/mm ² > 10,0 N/mm ² > 11,0 N/mm ² |
| Bond strength [N/mm ²] DIN EN 1542 | on average approx. 2,1 N/mm ² demands fulfilled | ☑ |
| Static modulus of elasticity [N/mm ²] DIN EN 13412 | approx. 31.700 N/mm ² demands fulfilled | ☑ |
| Sulfate resistance test acc. to Wittekindt | demands fulfilled | ☑ |
| Penetration test penetration of water-hazardous substances acc. to DAFStb-guideline | penetration depth on average 16,0 mm demands fulfilled | ☑ |
| Frost/de-icer test (CDF) BWA-guideline frost test | demands fulfilled | ☑ |
| Chloride ion content DIN EN 1015-17 | on average 0,009 demands fulfilled | ☑ |
| Temperature processing, ambient and sub-base temperature | ≥ 5 °C | |
| Water addition | per 25 kg bag | approx. 3,0 - 4,75 l |
| Material consumption | per m ² per mm | approx. 2,0 kg |

PROCESSING

Sub-base

Clean sub-base from loose debris, cement slurry, dust, acids, oils, greases. For full bond, the surface must be free from cracks, even, rough and open-pore. The surface bond strength required in the technical guidelines have to be observed (the value must not be less than 1,0 N/mm²). Before the application, pre-wet the sub-base thoroughly. In case of highly absorbent sub-bases, the pre-wetting may have to be repeated several times. The formation of a water film or puddles has to be avoided.

Processing

Before starting work, make sure that all personnel and equipment/tools required are in place. Mix CEMENT ALL with the specified quantity of water depending on processing method and mix for approx. 1 - 3 minutes in suitable pan type mixer or use stirrer. To mix, first add water into the mixing container. Then, whilst the mixer/stirrer is running, add CEMENT ALL. Use less water to achieve higher strength. Do NOT exceed the maximum water admixture. CEMENT ALL may be processed in traditional methods. The final finish should take place as soon as possible. CEMENT ALL may be trowelled, floated or textured. Apply in one complete layer, i.e. not in several layers, and as uniformly as possible. Do not apply on frozen sub-base. When compacting, avoid the entry of air voids. Temperature > 20 °C will reduce the working time, temperature < 20 °C may delay the strength development. To extend working time, add Rapid Set SET Control (retarder). To increase flowability, add Rapid Set FLOW Control (plasticizer) and the additive FAST to accelerate the setting time (see data sheet CONCRETE PHARMACY).

CURING

Begin water curing as soon as the surface has lost its moist sheen. Keep the surface wetted for 1 hour until the product has gained sufficient strength. When experiencing extended setting times, due to cold temperature or the use of a retarder, longer curing times may be required.

SUPPLY

25 kg special paper packaging
5 kg plastic container

STORAGE

Dry, like cement. Shelf-life approx. 12 months.

HINTS This product contains cement and has an alkaline reaction with moisture/water. Therefore protect skin and eyes. In case of contact with eyes, consult a doctor. The specifications provided in this data sheet for application and processing are based on tests carried out by KORODUR under ideal conditions in the laboratory and acc. to the relevant technical regulations. Therefore, the indicated data don't represent directions for application or a quality agreement in the meaning of § 434 (1) BGB, no regulation in the meaning of § 434 (2) sentence 2 BGB (German Civil Code) and no guarantee for practical application. Due to the differing conditions on site, preliminary own tests and suitability checks are required before application. Please consider the currently valid product information as well as the relevant safety data sheet acc. to Regulation (EC) No. 1907/2006 in the latest version – also published on the internet: www.korodur.de.



ISO 9001
Certified
Quality Management System
www.tuv-sud.com/ms-cert

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