



CONCRETE MIX

Very Fast-Setting Concrete



per 04/2021

**mineral, multipurpose fast-setting repair mortar
for layer thickness from 50 - 600 mm**

DESCRIPTION

Rapid Set CONCRETE MIX is a mineral, multipurpose fast-setting repair mortar based on special cement technology. Ideal where rapid strength, durability and low shrinkage setting are required. CONCRETE MIX can be applied in thickness from 50 - 600 mm. Initial set after 15 minutes, ready for stress in approx. 1 hour. CONCRETE MIX is similar in appearance to Portland cement construction materials and may be processed in similar methods.

APPLICATION

CONCRETE MIX is a multipurpose fast-setting repair mortar for general concrete repair, repair and construction of pavements, highways, concrete and machine foundations, formwork and industrial floors. Indoors and outdoors, also in wet areas.

SUSTAINABLE CONSTRUCTION

The use of CONCRETE MIX 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 50 - 600 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	C35/45	
Grain size	0 - 8 mm	
Colour	light grey	
Standard layer thickness <small>*in the first working step depending on the chosen consistency</small>	floor	50 - 600 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 min.
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-water-proofing)	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	> 19,0 N/mm ² > 25,0 N/mm ² > 35,0 N/mm ² > 41,0 N/mm ²

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Flexural strength [N/mm ²] DIN EN 1015-11	after 60 minutes after 180 minutes after 7 days after 28 days	> 4,5 N/mm ² > 6,5 N/mm ² > 4,7 N/mm ² > 7,0 N/mm ²
Static modulus of elasticity [N/mm ²] DIN EN 13412	approx. 30.690 N/mm ² demands fulfilled	<input checked="" type="checkbox"/>
Sulfate resistance test acc. to Wittekindt	demands fulfilled	<input checked="" type="checkbox"/>
Frost/de-icer test	demands fulfilled	<input checked="" type="checkbox"/>
Chloride ion content DIN EN 1015-17	on average 0,009 demands fulfilled	<input checked="" type="checkbox"/>
Temperature processing, ambient and sub-base temperature	≥ 5 °C	
Water addition	per 25 kg bag	approx. 3,0 - 4,5 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 CONCRETE MIX with the specified quantity of water depending on the 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 CONCRETE MIX. Use less water to achieve higher strength. Do NOT exceed the maximum water admixture. CONCRETE MIX may be processed in all traditional methods. The final finish should take place as soon as possible. CONCRETE MIX 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 wet for 1 hour until the product has achieved sufficient strength. As needed, the wetting should be repeated several times during this period in order to keep the surface continuously moist. 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

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.



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