

# KOROCRETE Fast-setting Concrete System

Fast-setting concrete on the basis of a ternary, dimensionally stable, special screed binder

## DESCRIPTION

KOROCRETE is a fast-setting concrete based on KORODUR FSCem, a cementitious, dimensionally stable, fast-setting screed binder on ternary basis for the production of heavy-duty concrete floors, which are quickly usable and early ready for covering (strength classes C35/45 to C50/60 based on DIN EN 206). Due to the high early strength, the flooring areas can be used and released to traffic within a few hours after their placement.

## APPLICATION

For the production of quickly usable concrete floors, indoors and outdoors. Repair of concrete floors with high durability due to dimensional stability and high final concrete strengths.

## PROPERTIES

- fast-setting
- fast-drying
- dimensionally stable
- nearly shrinkage- and tension-free
- crack-free setting
- shortened construction time
- quickly usable and ready for covering
- water-resistant, suitable in wet areas
- electrostatically non-chargeable
- non-flammable
- physiological and ecological harmless
- pumpable

## TECHNICAL DATA

<b>Mixing ratio</b> as an example for fast-setting concrete C50/60	KORODUR FSCem aggregates A/B16 water/cement ratio	380 kg approx. 1800 kg approx. 0,47
<b>Colour</b>	binding agent	grey
<b>Compressive strength [N/mm<sup>2</sup>]</b> measured on defined test cubes	after 6 hours after 8 hours after 16 hours after 28 days	approx. 18 N/mm <sup>2</sup> approx. 25 N/mm <sup>2</sup> approx. 35 N/mm <sup>2</sup> approx. 65 N/mm <sup>2</sup>
<b>Temperature</b>	processing, ambient and sub-base temperature	≥ 5 °C
<b>Processing time</b>	depending on the installation method and water dosage	approx. 45 - 60 minutes
<b>Stress / Use</b>	depending on the installation method and weather conditions	due to high early strength already after 6 hours

Hints: All the afore-mentioned technical data are examples and depend on the formulation.

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## PROCESSING

### Mixing with volumetric mixing technology

As best suited mixing technology, volumetric mixer trucks (e.g. Cemen Tech M-Series) should be favored. Volumetric mixer trucks hold all the concrete components separated from each other and mix them on site to fresh concrete. This ensures optimal processing of the fast-setting concrete. The formulations for the consistency pre-programmed in the system, can be adapted on site to cope flexibly with differing weather conditions. When fully loaded, a volumetric mixer truck can produce approx. 8 m<sup>3</sup> of concrete. The storage chambers for aggregates and cement can also be charged continuously during the mixing process.

### Mixing in concrete truck mixers

Alternatively, concrete truck mixers can be used, which are preloaded with aggregates and water at the concrete plant. The cement is added via big bags on the construction site. Mixing time when using concrete truck mixers is at least 15 minutes. When using aggregates A/B 16 with a water/cement ratio of 0.47, the consistency of the fresh concrete, acc. to experience and depending on the local aggregates, ranges at F3 - F4. The natural moisture content of the aggregate must always be taken into account and included in the calculation of the mixture.

To achieve higher consistency classes, the concrete plasticizer KOROTAN can be used. To extend the processing time, and as needed to cope with high outside temperatures, the concrete retarder KORODUR B-VZ can be used.

### General processing hints

Apply KOROCRETE quickly in uniform layer thickness, compact, level and smooth. For mechanical smoothing use hand-held one-disk equipment. Only apply an area size as can be treated within the processing time.

Higher temperatures shorten, lower temperatures extend the processing time. In outdoor areas, exposed to air drafts or low humidity, the fast-setting screed has to be protected from too rapid drying out with foil.

For further information refer to the data sheet for KORODUR FSCem.

## JOINTS

All joints in the base concrete have to be taken over. The concrete has to be separated from uprising masonry (walls, columns, etc.).

## SUPPLY

Screed binder FSCem: in big bags of 1.000 kg

## STORAGE

Dry, like cement. Shelf-life approx. 6 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](http://www.korodur.de).