

DOT Europe CONCRETE MIX

per 04/2021

mineral, multipurpose repair concrete for road surfaces for layer thickness from 50 - 600 mm

DESCRIPTION

Rapid Set DOT Europe CONCRETE MIX is a high-performance, polymer-modified, fast-setting, fiber reinforced repair concrete, based on special cement technology. Indoors and outdoors. DOT Europe CONCRETE MIX, acc. to DIN EN 1504-3 can be used for structural and general repairs. Ideal where rapid strength, durability and low shrinkage setting are required.
DOT Europe CONCRETE MIX can be applied in thickness from 50 - 600 mm and is ready for stress already after 1 hour.

APPLICATION

DOT Europe CONCRETE MIX is a multipurpose product qualified for statically relevant concrete repair, for road construction and repair, sidewalks, driving lanes, airport pavements and runways, bridges, parking decks, ramps, stairs, concrete machine foundations, formwork and industrial floors. Qualified also in wet areas. DOT Europe CONCRETE MIX is similar in appearance to Portland cement construction materials and may be processed in similar methods.

SUSTAINABLE CONSTRUCTION

The use of DOT Europe CONCRETE MIX reduces the CO_2 footprint, increases the energy and resource efficiency and conserves natural resources. The production of Rapid Set cement generates 30 % less CO_2 emissions than conventional Portland Cement. For further information (e.g. LEED values) contact KORODUR.

PROPERTIES

- fast-setting, ready for traffic stress and loading already after 2 hours
- low shrinkage setting, minimized cracking
- durable
- curing with water only
- polymer modified
- frost/de-icer resistant
- sulfate resistant
- chloride-free
- excellent bond: directly, without bonding compound
- multipurpose, for repair and new construction, horizontal and vertical use
- installation thickness 50 - 600 mm
- indoors and outdoors
- improved shelf-life

TECHNICAL DATA

Quality	C35/45	
Grain size	0 - 8 mm	
Colour	light grey	
Standard layer thickness *in the first working step depending on the chosen consistency	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 minutes	
Compressive strength [N/mm²] acc. to DIN EN 1015-11	after 28 days	approx. > 60,0 N/mm²
Flexural strength [N/mm²] acc. to DIN EN 1015-11	after 28 days	approx. > 6,5 N/mm²
Static modulus of elasticity [N/mm²] acc. to DIN EN 13412	approx. 28.000 N/mm² demands fulfilled	☑
Bond strength [by pull-off] acc. to DIN EN 1542	approx. ≥ 6,5 N/mm²	
Temperature processing, ambient and sub-base temperature	≥ 5 °C	

DOT Europe CONCRETE MIX

Water addition	per 25 kg bag	approx. 2,6 - 3,0 l
Material consumption	per m² 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 DOT Europe CONCRETE MIX with the specified quantity of water depending on the method of processing 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 DOT Europe CONCRETE MIX. Use less water to achieve higher strength. Do NOT exceed the maximum water admixture. DOT Europe CONCRETE MIX may be processed in all traditional methods. The final finish should take place as soon as possible. DOT Europe 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) (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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