



## KÖSTER Repair Mortar NC

Technical Data Sheet C 535 025

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### Fiber reinforced repair, concrete replacement and finishing mortar with high chemical and mechanical resilience

	<b>KÖSTER BAUCHEMIE AG</b> Dieselstraße 1-10, 26607 Aurich 18 C 535 <b>EN 1504-3:2005</b> <b>For structural and non structural repair for concrete</b> <b>Applying mortar by hand (3.1)</b> <b>EN 1504-3: ZA. 1a</b>
	Compressive strength MW $\geq$ 30 MPa (Class R1) Chloride ion content $\leq$ 0.05 % Adhesive bond 1.5 MPa Restrained shrinkage/expansion NPD Carbonation resistance NPD Elastic modulus NPD Reaction to fire Class E

#### Features

KÖSTER Repair Mortar NC is a repair mortar and plaster with excellent workability. It has a high adhesion to old and new mineral building material substrates. KÖSTER Repair Mortar NC is characterised by high chemical and mechanical resistance and compressive strength. It is fiber reinforced. It is ideally suited as substrate preparation for corrosion protection with KÖSTER PSM or KÖSTER Silicate Mortar, for example in industrial chimneys, sewer systems, or other concrete structures which are exposed to low pH environments.

#### Technical Data

Compressive strength (7 days)	> 30 N / mm <sup>2</sup>
Compressive strength (28 days)	> 45 N / mm <sup>2</sup>
Bending tensile strength (7 days)	approx. 3.5 N / mm <sup>2</sup>
Bending tensile strength (28 days)	approx. 4.5 N / mm <sup>2</sup>
Shrinkage	< 0.5 mm / m
Specific gravity of mortar	approx. 1.9 kg / l
Max. layer thickness (as plaster) per layer	5 cm
Pot life (20° C)	approx. 25 min.
Workable	after approx. 24 hours
E-Modulus	> 15.000 N / mm <sup>2</sup>

#### Fields of Application

KÖSTER Repair Mortar NC can be used for structurally relevant repair and touch up of voids, and for levelling of concrete defects. The material is especially suited as a repair mortar for use in structural members which are exposed to exceptional chemical and mechanical stresses such as for example in agricultural construction, chimneys with corrosive flue gas conditions, or wastewater applications, as well

as other construction elements like foundations, towers and bridges, among others.

#### Substrate

The surface has to be sound and solid, free of oil and grease, free of formwork separating agents, residual adhesions and cement residue. The material can be applied to all concrete substrates. The pull off strength of the substrate must have a minimum of 1.5 N / mm<sup>2</sup>. Directly before the application, pre-wet the substrate so that it is matt moist. Avoid standing water. Absorptive and salt contaminated substrates are to be primed with approximately 200 g/m<sup>2</sup> of KÖSTER Polysil TG 500.

When installing mortars substrate preparation is of vital importance. Pre-wet all mineral substrates before the installation of KÖSTER Repair Mortar NC. The surface near pore structure must be saturated, (avoiding standing water and puddles) so that it does not absorb water from the applied mortar.

#### Application

Mix 25 kg of KÖSTER Repair Mortar NC with 4.2 l water. Place  $\frac{3}{4}$  of the liquid into a mixing vessel of sufficient size and add the powder in portions while continually mixing with a slow rotating double paddle electrical mixer. Add the remaining liquid as needed during mixing to adjust the mortar to the desired consistency. Mix until a homogeneous, lump-free consistency is reached. Minimum mixing time is 3 minutes. If applying the maximum layer thickness of 5 cm the surface should also receive a scratch coat made from KÖSTER Repair Mortar NC with 5% KÖSTER SB Bonding Emulsion added to the mixing water. Instead of using water, it is also possible to mix with KÖSTER Mortar Boost, mixed with water in a ratio 1: 1.

#### Consumption

Approx. 1.9 kg/l void as repair mortar; approx. 19 kg/m<sup>2</sup>; per cm of layer thickness of the plaster

#### Cleaning

Clean tools immediately after use with water.

#### Packaging

C 535 025 25 kg bag

#### Storage

Store the material in a dry environment. In originally sealed packages, the material can be stored for a minimum of 12 months.

#### Safety

Wear protective gloves and goggles. Observe all governmental, state, and local safety regulations when processing the material.

#### Related products

KÖSTER Z 1 Prod. code C 155 001  
 KÖSTER Z 2 Prod. code C 255 001

The information contained in this technical data sheet is based on the results of our research and on our practical experience in the field. All given test data are average values which have been obtained under defined conditions. The proper and thereby effective and successful application of our products is not subject to our control. The installer is responsible for the correct application under consideration of the specific conditions of the construction site and for the final results of the construction process. This may require adjustments to the recommendations given here for standard cases. Specifications made by our employees or representatives which exceed the specifications contained in this technical guideline require written confirmation. The valid standards for testing and installation, technical guidelines, and acknowledged rules of technology have to be adhered to at all times. The warranty can and is therefore only applied to the quality of our products within the scope of our terms and conditions, not however, for their effective and successful application. This guideline has been technically revised; all previous versions are invalid.

KÖSTER PSM  
KÖSTER Repair Mortar R4  
KÖSTER Mortar Boost  
KÖSTER Polysil TG 500  
KÖSTER SB Bonding Emulsion  
KÖSTER Peristaltic Pump

Prod. code C 280 030  
Prod. code C 536  
Prod. code C 791 010  
Prod. code M 111  
Prod. code W 710  
Prod. code W 978 001

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