




## KÖSTER Sewer and Shaft Mortar

Technical Data Sheet C 590

Issued: 2023-08-22

- Test Certificate "Enhancement of Microbial growth on materials to come into contact with drinking water" Test pursuant to DVGW Technical standard W270, Nov. 2007  
 - Test Certificate "Hygienic requirements for cement-bound materials for drinking water supply" according to the DVGW code of practice W 347

### Chemically resistant, fast curing restoration mortar for sewers and shafts

	<b>KÖSTER BAUCHEMIE AG</b> Dieselstraße 1-10, 26607 Aurich 19 C 590 EN 1504-3:2005 <b>For structural and non structural repair for concrete</b> <b>Applying mortar by hand (3.1)</b> EN 1504-3: ZA. 1a
	Compressive strength $\geq 10$ MPa (Class R1) Chloride ion content $\leq 0.05$ % Adhesive bond 1.8 MPa Restrained shrinkage/expansion NPD Carbonation resistance NPD Modulus of Elasticity NPD Temperature change resistance NPD Grip NPD Coefficient of thermal expansion NPD Capillary water uptake NPD Reaction to fire NPD

#### Features

KÖSTER Sewer and Shaft Mortar is a water tight, fast curing and fast setting restoration mortar for sewers and shafts. KÖSTER Sewer and Shaft Mortar is fiber reinforced and develops a high compressive strength. KÖSTER Sewer and Shaft Mortar can be applied below the waterline even under flowing water; as well as in drinking water environment.

#### Technical Data

Density of fresh mortar	1.8 kg / l
Compressive strength (24 hours)	> 13 N / mm <sup>2</sup>
Compressive strength (7 d)	> 30 N / mm <sup>2</sup>
Compressive strength (28 d)	> 45 N / mm <sup>2</sup>
Bending tensile strength (24 h)	> 3.5 N / mm <sup>2</sup>
Bending tensile strength (7 d)	> 6 N / mm <sup>2</sup>
Bending tensile strength (28 d)	> 7 N / mm <sup>2</sup>
Modulus of Elasticity	> 15000
Max. aggregate size	approx. 0.5 mm
Swelling / shrinking behavior	max. 0.5 mm / m
Pot life (+ 20 °C)	approx. 20 min.

#### Fields of Application

KÖSTER Sewer and Shaft Mortar can be used for the watertight repair, renovation, and touch ups of sewer and shaft systems, as well as for levelling and filling of break-outs up to 3 cm per layer.

#### Substrate

The surface has to be sound and solid, and free of oil and grease. Contaminated substrates should be removed down to a contaminant free layer. KÖSTER Sewer and Shaft Mortar is useable on all stable, hard mineral substrates. Tiling must be removed. The substrate must be open pored.

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

#### Application

Mix 25 kg of KÖSTER Sewer and Shaft Mortar with 5.0 – 5.5 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.

The mortar has a pot life of approx. 20 minutes. Apply KÖSTER Sewer and Shaft mortar using customary mason's tools in one layer. The minimum thickness for a water tight coat is 4 mm, maximum thickness is 3 cm per layer.

#### Consumption

Approx. 1.8kg/l void as repair mortar; Approx. 18kg/m<sup>2</sup>; per cm layer thickness

#### Packaging

C 590 025 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 installing the material.

#### Related products

KÖSTER Mortar Accelerator	Prod. code C 792 750
KÖSTER Peristaltic Pump	Prod. code W 978 001

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.