



## KÖSTER Turbo Mortar M

### Fast setting, fiber reinforced repair and re-profiling mortar with very early high strength development

#### Features

KÖSTER Turbo Mortar M is a fiber reinforced repair, concrete replacement, and re-profiling mortar with high chemical and mechanical resistance. KÖSTER Turbo Mortar M can be mechanically stressed after 60 minutes. The consistency can be regulated for vertical or horizontal application. A distinguishing feature of KÖSTER Turbo Mortar M is its low shrinkage. With the addition of KÖSTER Turbo additives, the mortar characteristics can be optimized for individual jobsite requirements.

#### Technical Data

|                               |  |
|-------------------------------|--|
| Recoatable (+ 20 °C)          | after approx. 30 min.                  |
| Compressive Strength 1 h *    | greater than 20 N / mm <sup>2</sup>    |
| Compressive Strength 3 h *    | greater than 27 N / mm <sup>2</sup>    |
| Compressive Strength 1 d *    | greater than 35 N / mm <sup>2</sup>    |
| Compressive Strength 7 d *    | greater than 40 N / mm <sup>2</sup>    |
| Compressive Strength 28 d *   | greater than 45 N / mm <sup>2</sup>    |
| Bending tensile strength 7d   | approx. 3.5 N / mm <sup>2</sup>        |
| Bending tensile strength 28 d | approx. 4.5 N / mm <sup>2</sup>        |
| E-module                      | greater than 15000 N / mm <sup>2</sup> |
| Shrinkage                     | less than 0.5 mm / m                   |
| Fresh density                 | approx. 1.9 kg / l                     |
| Min. / Max. layer thickness   | 3 to 50 mm                             |
| Pot life (+ 20 °C)            | approx. 15 min.                        |

\* = after final set, mixed with 16 M% water

#### Fields of Application

KÖSTER Turbo Mortar M is suitable for all interior and exterior concrete repairs. It is especially suited to time-sensitive applications such as:

- Repair of industrial floors during continued operation
- Repair of streets and driveways
- Joining shaft rings
- Repair of bridges and infrastructure for fast re-opening
- Pouring foundations

#### Substrate

The surface must be sound and solid, free of oil and grease, 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>.

When installing mortars substrate preparation is of vital importance. Pre-wet all mineral substrates before the installation of KÖSTER Turbo Mortar M. The surface near pore structure must be saturated, (avoiding standing water and puddles) so that it does not absorb water from the applied mortar. Salt contaminated substrates are to be primed with approximately 200 g / m<sup>2</sup> of KÖSTER Polysil TG 500.

#### Application

Each 25 kg bag of KÖSTER Turbo Mortar M is mixed with 3.5 - 4.5 l of fresh water, which equates to 14 - 18 M%. Add 3/4 of the water to a sufficiently large mixing vessel. Add the powder component slowly

while constantly mixing with a screed or compulsory mixer. Mix to a homogenous, lump free consistency. Add the remaining water to achieve the desired consistency. Minimum mixing time is 3 minutes.

#### Additional components per 25 kg bag of KÖSTER Turbo Mortar M

##### KÖSTER Turbo Retarding Agent 25 g

Addition to the freshly mixed mortar increases the pot life by approx. 20 minutes.  
Add a maximum of 3 units.

##### KÖSTER Turbo Super Plasticizer 65 g

Mix 4.0 liters of water to a 25 kg bag of KÖSTER Turbo Mortar M. Slowly add the KÖSTER Turbo Super Plasticizer while mixing constantly until a flowable consistency has been reached, minimum 3 minutes mixing time. The plastic material will develop a flow-able consistency. If a more self-leveling consistency is required, up to 0.5 l of water may be added. Process the material immediately after mixing.

For large areas such as early loadable screeds KÖSTER Turbo Binding Agent can be mixed with sand on-site.

#### Aftertreatment

When necessary the freshly set material may be covered in polyethylene sheeting to aid curing.

#### Consumption

Approx. 1.9 kg / l void

#### Cleaning

Clean tools immediately after use with water.

#### Packaging

C 517 025 25 kg bag

#### Storage

Store the material in a dry environment. In originally sealed packages, the material can be stored for a minimum of 6 months.

#### Safety

Use gloves, goggles, mask, and all Personal Protective Equipment required by governmental, state, and local regulations while processing.

#### Related products

|                                |                      |
|--------------------------------|----------------------|
| KÖSTER Turbo Binding Agent     | Prod. code C 716 025 |
| KÖSTER Turbo Super Plasticizer | Prod. code C 717 065 |
| KÖSTER Turbo Retarding Agent   | Prod. code C 718 025 |
| KÖSTER Mortar Boost            | Prod. code C 791 010 |
| KÖSTER Polysil TG 500          | Prod. code M 111     |

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.