# **TZVM**

## Multipurpose trass cement mortar



#### One product, many applications

Standard masonry mortar M10 acc. EN 998-2 NM III according to DIN 20000-412 GP CS IV acc. DIN EN 998-1 CT-C20-F4 acc. DIN EN 13813 / DIN 18560 Standard plastering mortar GP CS IV acc. DIN EN 998-1

■ universal use



#### **APPLICATIONS**

- for masonry, plastering, laying, moving, production of screeds and execution of simple concreting tasks
- Laying screed: e.g. in garages and basement areas
- Concreting: Smaller concreting jobs e.g. backfilling
- Brick laying: Brickwork and all repairs
- Pre-spraying: Rough cast as a substrate for the plaster
- Plastering: Wall-base plaster, basement external wall plaster as well as damp rooms interior and exterior
- Laying steps and slabs: Staircases and floor coverings interior and exterior

#### **PROPERTIES**

- mineral
- versatile use
- high bonding strength
- high stability
- weather and frost resistant after hardening
- good workability
- low efflorescence risk due to Rhenish trass

## COMPOSITION

- cement in accordance with DIN EN 197-1
- trass in accordance with DIN 51043
- graded stone aggregates in accordance with DIN 13139
- additives for regulating and improving workability and product properties

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Properties/tests	<ul> <li>For assessing the plaster primer, VOB/C DIN 18350, Section 3, DIN EN 13914-1/13914-2 as well as the plaster standard DIN 18550-1/18550-2 should be observed.</li> <li>Masonry and substrates must be firm, load-bearing, frost-free and free of adhesion-reducing residues.</li> </ul>
Pretreatment	<ul> <li>The stones being laid and plaster substrates are to be pre-wet depending on their absorbency.</li> <li>For composite screed and bedding mortar, the substrate must be pre-wetted or pre-treated with slurry.</li> </ul>

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PROCESSING		
Temperature	■ Do not process or allow to dry out at air, material or substrate temperatures below +5°C, or if there is a risk of exposure to night frost, or at temperatures above +30°C, or in direct sunlight, or on heated u surfaces, and/or in windy conditions.	
Mixing / Preparation / Processing	<ul> <li>Using a flow mixer, gravity mixer or compulsory mixer, mix the dry mortar with clean water for no longer than 2 to 3 minutes to achieve the correct consistency.</li> <li>When mixing manually, first place the quantity of water specified in the technical data in a clean container and then sprinkle in dry mortar. Use clean tap water.</li> <li>use a suitable agitator to mix the material until smooth and free of lumps. Leave to rest for a moment and then mix again, adding more water, if required, to achieve the right consistency for applying.</li> <li>Do not mix with other products and/or other substances.</li> </ul>	
Processing	■ The material is suitable only for processing by hand.	
Processing / Working time	<ul> <li>■ approx. 2 hours</li> <li>■ The stated times apply for a temperature of +20°C and relative humidity of 65%.</li> </ul>	
Drying / Hardening	Protect the fresh mortar from drying out too quickly and from unfavourable weather conditions such as frost, draughts, direct sunlight and direct exposure to driving rain if necessary by hanging with foil.	
Cleaning the tools	■ Clean all tools and equipment with water immediately after use.	

### **PACKAGING**

- 25 kg/sack
- 40 kg/bag

### **STORAGE**

■ Store sacks appropriately and in dry conditions on pallets.

### QUANTITY REQUIRED / YIELD

- consumption: depending on application
- yield: app. 12-16 l fresh mortar per 25 kg/sack
- yield: app. 20-26 l fresh mortar per 40 kg/bag

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TECHNICAL DATA	
Product type	Standard masonry mortar
Compressive strength class	M10 according to DIN EN 998-2
Mortar group	NM III according to DIN 20000-412
Grain	0 – 4 mm
Water requirement	approx. 3.0 l per 25 kg/sack, approx. 4.8 l per 40 kg/bag
Bond strength / Adhesive shear strength	≥ 0.10 N/mm²
Chloride content	≤ 0.1 % by weight
Fire behaviour	A1 (non-flammable) in accordance with EN 13501
Water vapour permeability µ	15/35 (table value EN 1745)
Thermal conductivity $\lambda_{10,dry,mat.}$ for P=50%	≤ 0.82 W/(mK) (table value EN 1745)
Thermal conductivity $\lambda_{10,dry,mat.}$ for P=90%	≤ 0.89 W/(mK) (table value EN 1745)
Durability (frost resistance)	On the basis of available experience, suitable for highly aggressive environments in accordance with EN 998-2 Annex B
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All data are average values that were determined under laboratory conditions according to relevant test standards and application tests. Deviations are possible under practical conditions.

#### SAFETY AND DISPOSAL INSTRUCTIONS

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Safety	<ul> <li>This product produces an alkaline reaction when it comes into contact with moisture/water. Therefore ensure that skin and eyes are protected. If it should come into contact with the skin or eyes, rinse them thoroughly with water. See a doctor immediately if it comes into contact with the eyes.</li> <li>Further information can be found in the safety data sheet at www.tubag.de.</li> </ul>	
GISCODE	■ ZP1 (products containing cement, low-chromate)	
Disposal  ■ Completely empty and recycle the packaging.  ■ Dispose of the material in accordance with the official regulations.  ■ Dispose of hardened product in accordance with the local regulations. Do not allow to enter system. Dispose of the hardened product in the same way as concrete waste and slurries. according to the Ordinance on the European Waste Catalogue depending on the origin: 17 crete) or 10 13 14 (concretewaste and concrete slurries).		

#### **GENERAL INFORMATION**

This information sheet provides only general recommendations. Should you have any queries relating to a specific application, please contact our technical sales advisor or call our hotline: +49 541 601-601. Since natural raw materials are used, the values and properties described may vary somewhat. All of the details given are based on our current knowledge and experience and on the assumption that the materials are professionally applied and used for their normal purpose. All of the details are non-binding and do not release users from their duty to undertake their own tests to ensure suitability for the intended application. Due to the effects of different weather, processing and construction site conditions, no guarantee can be given for the general validity of all details. We reserve the right to make changes as a result of further development of the product and applications engineering. The general rules for construction engineering, the valid standards and guidelines, and the technical working guidelines must be observed. The publication of this technical data sheet renders all previous editions of this data sheet void. Please obtain the latest information from our website.