

TECHNICAL DATA SHEET

CEM ONE



ADHESIVES • PLASTERS • THERMAL INSULATION

Special fast-setting cement for floor screeds with accelerated drying

PURPOSE

CEM ONE is a special cement-based hydraulic binder, for preparing of floor screeds with accelerated drying. The product is used for interior and exterior application of levelling floor screeds over different building surfaces, when is required application of finishing coverings or waterproofing in short terms. The **CEM ONE** ability of complete drying in a period from 24 h to 4 days, determine its application for:

- floor screeds, ready for walking after 24 h and ready for carpet, PVC or wooden covering after 4 days
- floor screeds, ready for ceramic coverings after 24 h and stone coverings after 48 h
- floor screeds, when applying of floor heating system, with no need of any special additives

PROPERTIES

- ❖ fast-drying
- ❖ normal hardening
- ❖ controlled binding
- ❖ high strength characteristics

PREPARATION OF THE BASE

The base should be strong, dry, free oil, dust, sand and other contaminants or separating layers. All unstable areas should be mechanically removed.

CHARACTERISTICS AND TECHNICAL DATA

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| ▪ Colour: | grey |
| ▪ Base: | cement |
| ▪ Bulk weight: | over 1830 kg/m ³ |
| ▪ Work temperature: | +5°C to +35°C |
| ▪ Time for bucket stay: | 60 minutes |

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|----------------------------|------------------------|
| CEM ONE/sand ratio: | 1:4 |
| ▪ Compressive strength: | 29.4 N/mm ² |
| ▪ Flexural strength: | 6.4 N/mm ² |

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|----------------------------|------------------------|
| CEM ONE/sand ratio: | 1:6 |
| ▪ Compressive strength: | 18.2 N/mm ² |
| ▪ Flexural strength: | 4.6 N/mm ² |

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|----------------------------|------------------------|
| CEM ONE/sand ratio: | 1:7 |
| ▪ Compressive strength: | 16.1 N/mm ² |
| ▪ Flexural strength: | 4.1 N/mm ² |



APPLICATION AND PROCESSING

The necessary amount of **CEM ONE**, aggregates with selected grain size and water should be poured in consistently and mixed with machine concrete mixer, until homogeneous mixture is achieved. The components ratio is approximately 20 kg of CEM ONE, about 140 kg sand and 11-12.5 l water (depending on the humidity of the sand). It is recommended to add the water last, due to achieve the necessary consistency.

The ready mixture should be applied within 1 hour after stirring to avoid unnecessary layer separation.

Before the application of the screed begins, it is necessary to put a polyethylene cover or waterproofing membrane to separate the freshly laid material from the concrete slab in order to avoid unwanted absorption of water into the substrate.

The ready-to-use mixture is applied in a single layer, manually or with machine. The alignment is done with a stainless lute, observing the thickness of the layer to be not less than 3 cm and not more than 6 cm.

For floor heating systems, the minimum layer thickness should be 5 cm. The pipes should be laid at least 2.5 cm below the surface with an additional steel reinforcement mesh above them.

CONSUMPTION

- Depending of the working area dimensions

TOOLS FOR WORK

- machine concrete mixer
- floor screed machine
- metal lute

WEATHER CONDITIONS AT WORK

The minimum twenty-four-hour temperature of the air and the base should not be less than +5°C, and the maximum – not higher than +30°C. The lower temperatures extend processing time, and the higher temperatures reduce it. Avoid application in direct sunlight, rain or strong air drafts.

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FORM OF DELIVERY

Dry mixture in paper packages of 20 kg

NOTES

Characteristics and technical data of the product, pointed out into this Technical Data Sheet are defined at a standard temperature (20°C) and relative humidity (50%). In other weather conditions, the technological time for some of the processes, mentioned above, could be shorter or longer.

The information of the product is based on the practical experience of the manufacturer and the technical tests in specialized laboratories.

Do not mix with other building materials.

All hazards and precautionary statements about **CEM ONE** can be checked in the Safety Data Sheet of the product.

STORAGE

12 months into the originally sealed packages, in a dry and ventilated store. It is recommended to be stored on pallets.

TERAZID Ltd.

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Test Protocol № 1060-1/03.12.2018

NB 1950

DPCH № 20190819-01-D

CEM ONE

Fast-setting cement for floor screeds

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|-------------------------------|--|
| Bulk weight | 1830 kg/m ³ |
| Capillary absorption of water | 0.07 kg/m ² .min ^{0.5} |
| CEM ONE/sand ratio: | 1:4 |
| Compressive strength | 29.4 N/mm ² |
| Flexural strength | 6.4 N/mm ² |
| CEM ONE/sand ratio: | 1:6 |
| Compressive strength | 18.2 N/mm ² |
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| CEM ONE/sand ratio: | 1:7 |
| Compressive strength | 16.1 N/mm ² |
| Flexural strength | 4.1 N/mm ² |

The manufacturer recommends checking the suitability of the product in the Technical Data Sheet. The same is responsible for the product quality, but not for the ways and conditions of its applying.

The information into the present Technical Data Sheet is reliable but only if the product is used under stated conditions. The responsibility of any other usage of the product, including its usage in a combination with any other product or a process, is borne by the user.