



Quality Construction Solutions

# EM 490

## Calcium Sulphate Screed

### Product description

Flowing screed based on a calcium sulphate binder. Laboratory-controlled pre-mixed dry mortar supplied in bags (0-2 mm grain size) or silos (0-4 mm grain size). Meets all requirements of EN 13813 and DIN 18650 for CAF-C25-F5.

### Field of Application

Designed for use in residential and office buildings as a bonded screed, unbonded floor screed laid onto a membrane or floating screed on insulating material, over underfloor heating or in conjunction with cavity flooring.

### Properties

- Pumpable
- Low surface tension
- Low Shrinkage
- Eco friendly
- Economical solution for large, heated floor areas
- Virtually self levelling
- Must have a floor covering overtop.

### Application Instructions

Use only hoses with a diameter of > 35 mm. Once it has been laid, dapple the screed with a dappling bar to level it. Heat after 7 days according to the Ezymix heating protocol. Fix perimeter edge insulation strips with all floating constructions. The screed thickness must comply with the specification of DIN 18560 for calcium-sulphate flowing screeds. The perimeter strips should be at least 10 mm thick. For the layout of the joints, observe the room geometry.

### Substrate

The load-bearing substrate must comply with the specifications of DIN 18560 and 18202. Before starting, clean the floor and remove any concrete and mortar debris. Level large uneven patches before commencing work.

### Pre Treatment

For bonded construction, prime surface with EM 4716, diluted 1:3 with water. For floating constructions, lay separating membranes. The perimeter strips must be at least 10 mm thick and go from the load-bearing base to the top of the coated surface.

### Mixing time/Mixing procedure

Bulk silo material is mixed fully automatically with the silo mixing pump. Bagged material can be mixed with all standard plastering machines and mixing pumps. The m-tec duo-mix and duo-mix 2000 are especially suitable for mixing flowing screeds. Flow range with 1.3 l test can approx. 35-40 cm. The hoses can be lubricated with a slurry made of anhydrite binder before pumping. The slurry must be fully recovered at the end and must not be mixed with the screed.

### Tool cleaning

With water.

### Application

To achieve the desired screed level, install tripods or create a setting-out plan. The material is pumped via mortar hoses into the installation area. The screed is evenly distributed across the substrate by moving the hose in a sweeping motion. As soon as the desired level of screed is reached, it should be dapped immediately to obtain the best surface finish. The first pass with the dappling bar should be made with a deep, tamping motion. During the second pass, at right angles to the first, the bar should skim the surface. This creates a wave-like ripple across the surface, removing any air bubbles and levelling the screed.

### Subsequent Treatment

Keep all doors and windows closed for a minimum period of 24hrs to help to protect from uneven drying during this time that can be caused by direct sunlight or draughts.

| Technical Data                            |                                                     |
|-------------------------------------------|-----------------------------------------------------|
| Coverage Rate/Thickness                   | 18kg / m <sup>2</sup> per cm of thickness           |
| Drying Time                               |                                                     |
| Foot Traffic                              | After approx. 24 hours                              |
| Light Traffic                             | After approx. 3 days                                |
| Heavy Traffic                             | After approx. 28 days                               |
| Minimum nominal thickness                 |                                                     |
| Un-bonded                                 | 35mm over insulation board (un-bonded installation) |
| Bonded                                    | 10mm over existing Concrete Floor                   |
| Residual Moisture content before covering |                                                     |
| Un Heated Floors                          | ≤ 0.5 CM%                                           |
| Heated Floors                             | ≤ 0.3 CM%                                           |
| Recommended water content                 | approx. 15%                                         |
| Yield                                     | 550L / 1,000kd dry mortar                           |
| Elasticity modulus                        | Approx. 18000 N/mm <sup>2</sup>                     |
| Poured Density                            | 1.7 kg/dm <sup>3</sup> DIN EN 1097-3                |
| Dry Density                               | approx. 2.0 kg/cm <sup>3</sup>                      |
| Fresh Mortar Density                      | approx. 2.2 kg/cm <sup>3</sup>                      |
| 28 Day MPa                                | ≥ 25 MPa EN13892-2                                  |
| 28 Day Flexural Strength                  | ≥ 5 MPa EN13892-2                                   |
| 28 Day Shrinkage                          | < 0.2 mm/m                                          |
| Thermal Conductivity                      | 1.2 – 1.8 W/mk                                      |
| Fire rating                               | A1 EN 13813                                         |
| Thermal expansion coefficient             | 0.011 mm/mk                                         |
| Application temperature                   |                                                     |
| Ambient air                               | +5°C to +30°C                                       |
| Substrate                                 | +5°C to +25°C                                       |
| Working time                              | Up to 30min @ 20°C                                  |
| Flow rate                                 | 35cm – 40cm without seperation                      |
| Inside application only                   |                                                     |



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### **Storage**

Store bags on pallets in a dry place for a maximum of 6 months.

### **Packaging**

Available in 25 kg bags  
40 bags/pallet  
1000 kg/bulk bags

### **Environmental notices**

GISCODE: CP1

Product hardens when water is added and can then be disposed of as normal construction debris.

### **Safety Information**

This product is not subject to specific labelling requirements.  
This product produces a strong alkaline reaction with water.  
Low in chromate content. Observe current SDS, available at:

[www.ezymix.co.nz](http://www.ezymix.co.nz)

### **Legal Notices**

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