CM 11
»COMFORT«
Universal thin-bed adhesive mortar

CHARACTERISTICS
» for indoor use, outdoor use possible in domestic areas
» for earthenware and stoneware tiles
» for dry and wet areas
» improved working parameters

SCOPE OF USE
Ceresit CM 11 adhesive mortar is designed for laying ceramic (glazed, terracotta) and natural stone tiles (colour-fast) on dimensionally stable substrates such as: concrete, cement screeds, cement or cement and lime plasters. Suitable for using indoors and outdoors.

SUBSTRATE PREPARATION
Ceresit CM 11 adhesive mortar can be applied on even, load-bearing and compact substrates, free of any substances that reduce adherence (such as: grease, bitumens, dust):
indoors and outdoors:
– concrete (at least 3 months old, residual moisture ≤ 4%),
– cement screeds and plasters, cement and lime plasters (at least 28 days old, residual moisture ≤ 4%);
indoors:
– anhydrite (residual moisture below 0.5%) and gypsum (residual moisture below 1%) substrates - mechanically roughened, freed from dust and primed with CT 17,
– aerated concrete - freed from dust and primed with CT 17.
Substrates must not be wet. Any existing dirt, loose layers and paint coating with low strength shall be mechanically removed. Absorbent substrates shall be primed with Ceresit CT 17 and left to dry for at least 2 hours. Surface unevenness of up to 5 mm can be filled on the previous day with the same CM 11 mortar. In the case of bigger unevenness and dents - Ceresit products from the CN group shall be used on floors and Ceresit CT 29 filler on walls.

APPLICATION
Pour the content of the package to a precisely measured amount of clean, water or to the water solution of CC 83 emulsion (2 parts of CC 83 mixed with 1 part of water)* and stir with a drill with a mixer until it forms a homogeneous mass, free of lumps. Leave for 5 min. and then stir the mixture again. If necessary - add a small amount of water and stir once more. Spread the mortar onto the substrate with a notched trowel. For indoor wall application, the mortar coverage on the tile backside should be minimum 65%. Tiles must not be soaked in water! Tiles should be laid in during the open time of the adhesive mortar. Do not lay tiles butt jointed! Fresh stains from the mortar can be rinsed with water, hardened stains must be removed mechanically. Grouting can be done not earlier than after 24 hours using Ceresit materials from the CE group. Expansion joints between tiles, joints at corners, in places where floor meets walls and around sanitary equipment shall be filled with Ceresit CS 25 MicroProtect silicone.
PLEASE NOTE

Works should be carried out in dry conditions, with the air and ground temperature from +5 °C to +25 °C. CM 11 contains cement and after mixing with water produces an alkaline solution. Therefore protect eyes and skin. In the case of eye contact, rinse eyes thoroughly with water and consult a doctor.

OTHER INFORMATION

The manufacturer recommends using suitable products from the system solution range.

• For grouting, Ceresit CE 40 aquastatic grout is recommended. On substrates exposed to chemical aggression or mechanical impact (terraces, balconies, traffic areas) Ceresit CE 43 Grond‘Elit grout shall be used.
• Dirt- and water-repellent silicone impregnation agent Ceresit CT 10 shall be used for additional protection of joints and ceramic cladding against staining.

In the case of laying tiles made of stone that is prone to colour changes, sample tests must necessarily be carried out in order to check whether the mortar causes no fading of the tiles. With the publication of this data sheet, any previous sheets become invalid.

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Base:</th>
<th>a mixture of cements with mineral fillers and modifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulk weight:</td>
<td>approx. 1.45 kg/dm³</td>
</tr>
<tr>
<td>Mixing ratio:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>packaging size [kg]</th>
<th>water amount [l]</th>
<th>water amount [l] + CC 83 addition [l]</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>approx. 1.1</td>
<td>0.4 l of water + 0.7 l CC 83</td>
</tr>
<tr>
<td>15</td>
<td>approx. 3.3</td>
<td>1.1 l of water + 2.2 l CC 83</td>
</tr>
<tr>
<td>25</td>
<td>approx. 5.5</td>
<td>2 l of water + 3.5 l CC 83</td>
</tr>
<tr>
<td>27.5</td>
<td>approx. 6</td>
<td>2 l of water + 4 l CC 83</td>
</tr>
<tr>
<td>30</td>
<td>approx. 6.6</td>
<td>2.3 l of water + 4.3 l CC 83</td>
</tr>
</tbody>
</table>

Application temperature: from +5 °C to +25 °C
Initial maturing time: approx. 5 min.
Pot life: up to 2 hours (90 min)*
Open time (according to the PN-EN 12004 standard): adherence > 0.5 MPa
Creep (according to the PN-EN 12004 standard): ≤ 0.5 mm

Grouting: after 24 hours
Adhesive tension strength (according to the PN-EN 12004 standard):
- initial: ≥ 0.5 MPa,
- after soaking in water: ≥ 0.5 MPa,
- after thermal maturing: ≥ 0.5 MPa,
- after freezing and defrosting cycles: ≥ 0.5 MPa

Temperature resistance: from -30 °C to +70 °C
Reaction to fire: A1/A1

Approximate consumption (for even substrates; consumption can vary depending on the evenness on the substrate and the type of tiles):

<table>
<thead>
<tr>
<th>tile size</th>
<th>notch depth</th>
<th>amount of CM 11 [kg/m²]</th>
<th>amount of CC 83* [l/m²]</th>
</tr>
</thead>
<tbody>
<tr>
<td>up to 10 cm</td>
<td>4 mm</td>
<td>2.0</td>
<td>0.4</td>
</tr>
<tr>
<td>up to 15 cm</td>
<td>6 mm</td>
<td>2.7</td>
<td>0.52</td>
</tr>
<tr>
<td>up to 25 cm</td>
<td>8 mm</td>
<td>3.4</td>
<td>0.65</td>
</tr>
<tr>
<td>up to 30 cm</td>
<td>10 mm</td>
<td>4.2</td>
<td>0.78</td>
</tr>
</tbody>
</table>

* with the addition of CC 83

Shelf life/ Storage: Up to 12 months from the production date, if stored on pallets, in dry conditions, in original and undamaged packages.

The product is compliant with the PN-EN 12004:2008 standard.

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Fire reaction: class A1
Release of dangerous substances: see MSDS
Bond strength, as:
- Initial tensile adhesion strength ≥ 0.5 N/mm²
- Tensile adhesion strength after water immersion ≥ 0.5 N/mm²
- Tensile adhesion strength after heat aging ≥ 0.5 N/mm²
- Tensile adhesion strength after freeze-thaw cycles ≥ 0.5 N/mm²
Open time:
- Tensile adhesion strength ≥ 0.5 N/mm² after at least 20 minutes

Normal setting cementitious adhesive with reduced slip
EN 12004: 2007 + A1: 2012 C1 T
Slip: ≤ 0.5 mm

Apart from the information given here it is also important to observe the relevant guidelines and regulations of various organisations and trade associations as well as the respective standards of the German Standards Institute (DIN). The aforementioned characteristics are based on practical experience and applied testing. Warranted properties and possible uses which go beyond those warranted in this information sheet require our written confirmation. All data given was obtained at an ambient and material temperature of +23 °C and 50 % relative air humidity unless specified otherwise. Please note that under other climatic conditions hardening can be accelerated or delayed.

The information contained herein, particularly recommendations for the handling and use of our products, is based on our professional experience. As materials and conditions may vary with each intended application, and thus are beyond our sphere of influence, we strongly recommend that in each case sufficient tests are conducted to check the suitability of our products for their intended use. Legal liability cannot be accepted on the basis of the contents of this data sheet or any verbal advice given, unless there is a case of wilful misconduct or gross negligence on our part. This technical data sheet supersedes all previous editions relevant to this product.

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