

CM 117

Flexible adhesive mortar

Thin-bed mortar for laying ceramic tiles and fine stoneware

CHARACTERISTICS

- ▶ for indoor and outdoor use
- ▶ easy application
- ▶ also suited for heated screeds
- ▶ for laying fine stoneware indoors
- ▶ long open time

SCOPE OF USE

For placing and laying ceramic tile coverings indoors and outdoors, fine stoneware indoors as well as insulating boards. Also suited for use on heated screeds, cement screeds and roughened anhydrite screeds or fluid plaster screeds, dry screeds and mastic asphalt screeds (indoor areas). It can also be applied on existing wall and floor tiles. For ensuring a flexible adhesive bed and to prevent squeezing stresses on critical substrates, e.g. old artificial stone and tile coverings, paint coats and mastic asphalt screeds.

SUBSTRATE PREPARATION

CM 117 adheres to all solid, load-bearing, clean, dry and moist surfaces free of substances which can cause separation. Remove any coatings with inadequate bearing strength.

Depressions of up to 5mm depth can be repaired and screeded with CM 117 the day before.

Indoors:

Use CT 17 to prime anhydrite screeds (mechanically roughened and freed from dust; moisture content ≤ 0.5 wt-%), lightweight concrete, plasterboards and gypsum plasters (PIVa/b and PV, moisture content ≤ 1.0 wt-%), sandwich-type and fibrous plasterboards as well as all highly absorbent surfaces.

Allow the priming coat to air for approx. 4 hours.

Extruded polystyrene tiles, tile support elements, natural and synthetic stone floors, coatings with good adhesion, mastic asphalt (no industrial use; minimum strength GE 10, GE 15; roughened with sand) do not



need to be primed. Paintwork (not chalking and with good adhesion) must be thoroughly roughened and freed from dust.

Old indoor tile coverings (clean and free from substances likely to impair adhesion) must be primed with CN 94.

Outdoors and indoors:

Tiles can be laid direct onto plasters of mortar groups PII and PIII (at least 28 days old), cement screeds (at least 28 days old, moisture content ≤ 2 wt-%) and concrete (at least 6 months old).

APPLICATION

Stir CM 117 into clean, clear water until it is completely free of lumps. Leave to mature for approx. 5 minutes and stir again.

If necessary, carefully add water until the desired consistency is achieved. Apply the thin-bed mortar according to the recognized rules of the thin-bed

method. Allow for a skin formation time of approx. 25 minutes.

Use a notched spreader with suitable toothing so that the raised mortar is at least 65 %. Fresh excess mortar can be removed with water, once hardened material can only be removed mechanically.

In case of wood chipboards (V 100, ≥ 22 mm) or composite systems subject to high thermal stress, e.g. outdoors on balconies and patios, as well as young precast concrete members (at least 3 months old), it is recommended to modify CM 117 with CC 83 Flexi-Enhancer Additive to achieve additional flexibility. Use CM 117 only in dry conditions and at temperatures of +5 °C to +30 °C.

PLEASE NOTE

CM 117 contains cement and reacts with water, producing an alkaline solution. Therefore protect eyes and skin and rinse thoroughly with water if contact occurs. In case of contact with the eyes seek medical advice immediately.

Please refer in particular to DIN 18 352, DIN 18 157, DIN 18 515 and the information sheets issued by the Central Association of the German Building Trade (ZDB).

Use other Ceresit products for laying tiles in chemically stressed areas and on surfaces other than those mentioned here.

Observe the warnings-, safety- and waste advice given in the safety data sheet.

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02	
00034	
EN 12004: 2007 C2TE	
Cementitious adhesive with improved characteristics, slip-resistance and extended open time	
Reaction to fire	E
Release of dangerous substances	see MSDS
Bond strength, as:	
Initial tensile adhesion strength	$\geq 1.0 \text{ N/mm}^2$
Tensile adhesion strength after water immersion	$\geq 1.0 \text{ N/mm}^2$
Tensile adhesion strength after heat ageing	$\geq 1.0 \text{ N/mm}^2$
Tensile adhesion strength after freeze-thaw cycles	$\geq 1.0 \text{ N/mm}^2$
Durability, for:	
Open time: tensile adhesion strength after not less than 30 min	$\geq 0.5 \text{ N/mm}^2$
Slip	$\leq 0.5 \text{ mm}$

TECHNICAL DATA

Base:	Plastic-modified cement combination (chromate-reduced, GISCODE ZP 1) with mineral fillers Thin-bed mortar DIN/EN 12 004 C2 TE
Bulk weight:	approx. 1.3 kg/dm ³
Mixing ratio:	approx. 7.5 l to 9.0 of water for 25 kg
Maturing time:	5 minutes
Application temperature:	+5 °C to +30 °C
Application time:	approx. 2 hours
Open time:	approx. 20 minutes
Creep:	$\leq 0.10 \text{ mm}$
Groutable after*:	12–24 hours
Temperature resistance:	-30 °C to +70 °C
Adhesive tension strength with all storage types:	$\geq 1.0 \text{ N/mm}^2$

With the addition of CC 83

Mixing ratio:	2 kg of CC 83 + 6.0 to 6.5 l of water for 25 kg
Application time:	approx. 90 minutes
Open time:	approx. 20 minutes
Groutable after:	48 hours
Adhesive tension strength:	$\geq 1.0 \text{ N/mm}^2$

Amount required:

Notch depth acc. to DIN 18 157 in mm	CM 117 in kg/m ²	CC 83 in kg/m ²
4	approx. 1.8	approx. 0.15
6	approx. 2.5	approx. 0.17
8	approx. 3.2	approx. 0.25
10	approx. 3.6	approx. 0.30
Medium bed	approx. 4.9	approx. 0.50

Shelf life: Approx. 12 months if stored in a tightly sealed container, in cool and dry conditions. Use product in opened containers as soon as possible.

* (depending on the absorbency of the substrate)

The above information, in particular recommendations for the handling and use of our products, is based on our professional knowledge and experience. As materials and conditions may vary with each intended application and thus are beyond our control, we strongly recommend that in each case sufficient tests are conducted to check the suitability of our products for the intended application method and use. Legal liability cannot be accepted on the basis of the contents of this technical data sheet or any verbal advice given unless there is evidence of wilful intent or gross negligence on our part.

This technical data sheet supersedes all previous editions.

Apart from the information given in this technical data sheet, it is also important to observe the relevant guidelines and regulations of various organizations and trade associations as well as the applicable DIN standards.

All data given was obtained at an ambient and material temperature of +23°C and 50 % relative humidity unless specified otherwise. Please note that under other climatic conditions hardening can be accelerated or delayed.



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