# Ceresit

# CM 12 »ELASTIC«



# **CHARACTERISTICS**

- for gres and ceramic tiles indoor and outdoor
- on non-deforming and sealed substrates
- in wet areas
- for use on underfloor heating
- water- and frost-resistant



### SCOPE OF USE

Ceresit CM 12 adhesive mortar is designed for laying gres and other ceramic, cement and natural stone tiles (colour-fast), indoors and outdoors. Ceresit CM 12 mortar can be used in areas exposed to water penetration and on heated floors. The properties of the mortar allow for laying tiles on fibre-gypsum boards and plasterboards ( $\geq$ 12.5 mm thick), on anhydrite screeds, gypsum and lightweight concrete substrates and Ceresit elastic sealing materials: CL 50, CL 51 or CR 166. By adding Ceresit CC 83 elastic emulsion, the technical parameters of CM 12 mortar improve, making it suitable for using in system solutions exposed to big temperature changes, e.g. on terraces and balconies.

For other types of tiles and other substrates, higher loads and deformable substrates like terraces and balconies - suitable Ceresit mortars and adhesives are recommended.

# SUBSTRATE PREPARATION

Ceresit CM 12 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  $\leq$  4%),
- cement screeds and plasters, cement and lime plasters (at least 28 days old, residual moisture < 4%);</li>

#### indoors:

- plasterboards primed with Ceresit CT 17,
- paintwork (not chalking and with good adhesion), roughened with sandpaper, freed from dust and primed with CT 17,
- 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 12 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 and stir using a drill with a mixer until it forms a homogeneous mixture, 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's backside should be minimum 65%. When tiles are exposed to permanent moisture and freezing, the combined (floating--buttering method) shall be used, i.e. an additional thin layer of the mortar shall be applied on the backside of the tiles. Tiles must not be soaked in water! Tiles should be laid in during the opne 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 12 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 Grand'Elit grout shall be used.
- For waterproofing in indoor applications a sealing film Ceresit CL 51 and sealing tape Ceresit CL 62 are recommended. For outdoor use, we recommend Ceresit CL 50 or Ceresit CR 166 sealing film and Ceresit CL 152 sealing tape.
- 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.

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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TEC	HN	DATA

Base:	a	a mixture of cements with mineral				
	fi	llers and mo	difiers			
Bulk weight:	a	approx. 1.23 kg/dm³				
Mixing ratio:						
packaging si	ize water	amount	wo	iter amount [l]		
[kg]		[I]	+ C0	C 83 addition [l]		
25	6.25	6.75	2.0	CC 83 + 4.5 l		
30	7.6	5-8.0	2.4	CC 83 + 5.4 l		
Application tem	perature: fr	rom +5 °C t	o +25 ℃	2		
Initial maturing t	ime: a	pprox. 5 mir	ı.			
Pot life:	U	p to 2 hours	(90 min)	*		
Open time (acco	ording to the PN	EN 12004 s	tandard)	:		
		dherence <u>&gt;</u>				
Creep (according	g to the PN-EN	12004 stand	ard):			
		<u>&lt;</u> 0.5 mm				
Grouting:		after 24 hours				
Adhesive tension	n strength (accor	ding to the P	'N-EN 12	004 standard):		
- initial:	2	$\geq$ 0.5 MPa,				
- after soaking in water:		$\geq$ 0.5 MPa,				
		$\geq$ 0.5 MPa,				
- after freezing a	and defrosting cy	cles:				
	2	<u>•</u> 0.5 MPa				
Temperature resi	istance: fr	om -30 °C t	o +70 ℃	2		
Reaction to fire:	A	2 <sub>4</sub> – s1				
Approximate cor	nsumption (for e	ven substrate	es; consu	mption can vary		
depending on th	ie evenness on t	he substrate	and the t	ype of tiles):		
tile size	notch depth	amount of	CM 11	amount of CC 83*		
		[kg/m	1 <sup>2</sup> ]	[l/m²]		
up to 10 cm	4 mm	1.4		0.11		
up to 15 cm	6 mm	2.0		0.16		

 up to 15 cm
 6 mm
 2.0

 up to 25 cm
 8 mm
 2.6

 up to 30 cm
 10 mm
 3.1

with the addition of CC 83

Shelf life/ Storage:

Up to 12 months from the production date, if stored on pallets, in dry conditions,

0.20

0.25

in original and undamaged packages

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

	Fire reaction:	class A2 <sub>ff</sub> – s1
CE	Release of dangerous substances: Bond strength, as:	see MSDS
1487	Initial tensile adhesion strength	$\geq$ 0,5 N/mm <sup>2</sup>
Henkel Polska Sp. z o.o. 02-672 Warszawa, ul. Domaniewska 41	Durability, for: Tensile adhesion strength after w immersion: Tensile adhesion strength after	vater ≥ 0,5 N/mm²
13	heat aging:	$\geq$ 0,5 N/mm <sup>2</sup>
00018	Tensile adhesion strength after freeze-thaw cycles:	$\geq$ 0,5 N/mm <sup>2</sup>
EN 12004:2007 + A1:2012	Open time: tensile adhesion strength	≥ 0,5 N/mm <sup>2</sup>
Normal setting cementitious adhesive with reduced slip and extended open time EN 12004: 2007 + A1: 2012 C1 TE	Slip:	after at least 30 minutes <u>&lt;</u> 0,5 mm

Should you need support or advice, please consult our advisory service for architects and craftsmen on the hotline numbers Phone: +49 211 797 0 Fax: +49 211 798 2148

# Quality for Professionals