Ceresit

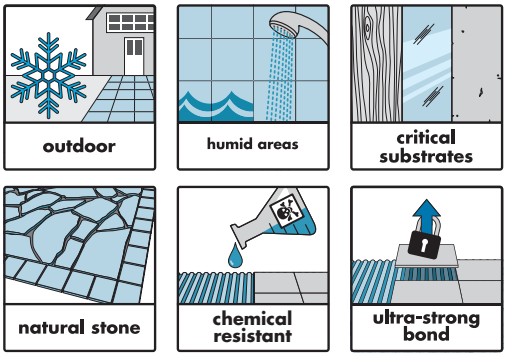
CM 74

UltraPox Fix

2-component, chemical-resistant epoxy adhesive.
For fixing and grouting tiles and stones

CHARACTERISTICS

- ▶ Easy application
- ▶ Waterproof
- ▶ Resistant to chemical attack
- ▶ Solvent-free
- ▶ Drinking water approved



SCOPE OF USE

For the permanent and chemically resistant fixing and grouting of ceramic tiles and stones, acid-resistant bricks, split tiles, chipboards, porcelain, clinker slabs and synthetic resin bonded slabs (Agglo marble etc).
For fixing and grouting ceramic coverings in areas exposed to aggressive substances, e.g. in therapeutic baths, dairies, industrial kitchens, battery rooms, car washes, breweries, silos, animal housing, swimming pools, laboratories, spas, saunas and steam baths. For indoor and outdoor use, in permanently wet and drinking water areas.

SUBSTRATE PREPARATION

CM 74 adheres to all sound, load-bearing, clean and dry substrates free of substances that may impair adhesion. Prior to grouting, the surface, thin-bed mortar or bedding mortar must have set sufficiently hard and all joints must be uniformly raked to the same depth and width. To ensure a permanent bond with metal, the substrates must be bright metal or coated with an epoxy corrosion inhibitor.

APPLICATION

CM 74 consists of two components supplied in one container. Add the hardener (component B) to the resin (component A) and mix with a low-speed electric drill and stirrer (approx. 400 rpm) until the mixture is completely free of lumps. Mixing ratio A/B is 10 : 1.
It is absolutely essential to pour the complete amount of component B (bottle inside the bucket) into component A. Make sure to always mix the full contents of each component pack.
Fixing tiles and stones:
CM 74 is applied using the thin-bed method. The notch size of the trowel must be adapted to the respective tile or stone format in accordance with DIN 18157.
The working time, which is identical with the correction time, is approx. 90 minutes at room and container temperatures of +18 °C.
When installing ceramic coverings subject to heavy-duty conditions, e.g. in therapeutic baths, swimming pools or battery rooms, waterproof the whole surface area with CE 49 Epoxy FlexSeal.
This protects the surface against the penetration of water and

the effects of acids and alkalis. Use the accessory products CL 82, CL 83, CL 84, CL 86, CL 87 (sealing tapes and collars) for producing waterproof corners and edges. Embed these products into the middle of the waterproofing coat in the area of corners and movement joints.

Grouting the joints (trowel method):

Work the mixed CM 74 compound with an epoxy grout float into the clean, dry joints. Make sure the joints are completely filled without any voids. Afterwards remove any excess material by skimming it diagonally off the tile surface with the grout float.

Grouting the joints (injection method):

Produce a homogeneous mixture of components A + B, pour it into another suitable vessel (e.g. by the company Beyer & Otto GmbH, Kleinostheim/Germany) and fill it through a single-hole pressure disk into the cartridge. Screw on a nozzle that matches the joint width and inject the epoxy grout void- and bubble-free into the joints. Skim off any excess material with the epoxy grout float.

Cleaning:

Use a fine hydro grout sponge (not a coarse Scotch-Brite® pad) and a little water to remove any remaining material from the tile surface. Work with circular movements to emulsify the material and then remove the resulting slurry. After that, wipe the remains off with a clean, fine hydro sponge and very little water. Carefully rinse the sponge frequently in clear water. Before cleaning, wait until the epoxy grout has started to set. Before final cleaning, wait at least 3 hours but no more than 6 hours. Use a fine hydro sponge to remove the remaining film off the tile surface. Cleaning is facilitated by adding CE 51 Epoclean to the cleaning water (detergent additive for removing epoxy films). Mixing ratio: 100 ml CE 51 for 8 litres of warm water.

For removing hardened resin films refer to the instructions given in the Technical Data Sheet of CE 51. Remove fresh grout and adhesive residues within the pot life using warm water, CE 51 Epoclean and a brush. Fully hardened material can only be removed mechanically.

After grouting, the newly tiled surface is ready for foot traffic after only 24 hours.

CM 74 reaches its final chemical and mechanical resistance after only 7 days.

PLEASE NOTE

Use CM 74 only at substrate and air temperatures of +10 °C to +25 °C. CU 74 contains epoxy compounds. Please make sure to observe the hazard warnings and safety information on the container and in the Safety Data Sheet.

For further information refer to the information sheets M 004, M 017, M 023, M 042 of the "Berufsgenossenschaft der Chemischen Industrie (BG-Chemie)" (Employers' Liability Insurance Association of the Chemical Industry).

Please refer in particular to DIN 18352, DIN 18157, the information sheets issued by the "Zentralverband des Deutschen Baugewerbes e. V." (Central Association of the German Building Trade) and AGI worksheet S 10.

Should you need support or advice, please consult our advisory service for architects and craftsmen.
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TECHNICAL DATA

Chemical basis:	epoxy resin with mineral fillers and additives; tested according to DIN 18156-E GISCODE RE 1
Fresh mortar density:	1.6 kg/m²
Mixing ratio:	10 parts by weight of component A to 1 part by weight of component B
Working time:	approx. 90 minutes
Working temperature:	+10 °C to +25 °C
Open time:	approx. 90 minutes
Open time acc. to DIN EN 1346:	> 2 N/mm²
Load-bearing strength:	after 24 hours
Chemical resistance:	after 7 days acc. to resistance Table 1.40 (reichen wir nach)
Temperature resistance:	–30 °C to +100 °C (dry heat)
Adhesive tensile strength:	≥ 2.2 N/mm² under all storage conditions
Shear strength acc. to DIN EN 12003:	> 2 N/mm² under all storage conditions

Consumption when used as tile adhesive:

Notch size in mm	Consumption in kg/m²
3	1.9
4	2.2
6	2.8
8	3.4

Consumption per mm layer thickness:	1.1 kg/m²/mm (approximate value)
Consumption (grouting):	approx. 1.6 kg/l/m² joint (approximate value)
Calculation of the amount required as grout mortar:	Number of joints x joint depth x joint width 1.6 kg/m²

Tile format cm	Tile thickness mm	Tile width mm	Consumption kg/m²
5/5	5	4	1.3
10/10	8	4	1.0
15/15	6	6	0.8
10/20	6	6	0.9
10/20	10	8	1.9
20/20	10	8	1.3

Colour:	grey
Packaging unit:	5 kg, 8 kg
Shelf life:	approx. 12 months if stored in the unopened original container in a frost-free and dry place at a temperature above +10 °C. Use up opened containers as soon as possible.

CE

0432

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EN 12004:2007+A1:2012 R2T

Improved reaction resin adhesive with reduced slip

Reaction to fire	**E**
Release of dangerous substances	**see MSDS**
Bond strength, as:	
initial shear adhesion strength	≥ **2.0 N/mm²**
shear adhesion strength after water immersion	≥ **2.0 N/mm²**
shear adhesion strength after therma shock	≥ **2.0 N/mm²**
Durabiliy, for:	
Open time: Tensile adhesive strength after not less than 20 min	≥ **0.5 N/mm²**
Slip	≤ **0.5 mm**

CHEMICAL RESISTANCE of Tile Grouts

Chemical	CE 44	CM 74/CE 79
Acetone	+	–
Alcohol 100 %	+	O
Alcohol 10 %	+	+
Aluminium sulphate, saturated	+	+
Formic acid 2 %	+	
Ammonia solution 25 %	+	+
Ammonia solution 10 %	+	+
Ammonia solution 5 %	+	+
Ammonium nitrate 50 %	–	+
Ammonium phosphate	–	+
Ammonium sulphate 20 %	–	+
Benzene	–	+
Fuel (premium)	–	O
Boric acid 5 %	–	+
Calcium chloride, saturated	–	+
Calcium hydroxide solution	+	+
Calcium nitrate, saturated	+	+
Calcium sulphate	+	+
Iron chloride	+	+
Iron sulphate, saturated	+	+
Glacial acetic acid	–	–
Crude oil (petroleum)	+	+
Acetic acid, 10 %	–	O
Acetic acid, 2 %	+	+
Glycerine	+	+
Glycol	+	+
Household cleaners (Biff, Breff)	+	–
Light fuel oil	+	+
Potash lye 5 %	+	+
Potash lye 25 %	+	+
Potash lye 50 %	+	+
Potassium carbonate, saturated	+	+
Potassium nitrate, saturated	+	+
Potassium sulphate, saturated	+	+
Lime milk	+	+
Kerosene	+	+
Carbon dioxide	+	+
Refrigerating brines	+	+
Copper sulphate, saturated	+	+
Magnesium sulphate, saturated	+	+
Lactic acid 3 %	–	O
Lactic acid 2 %	+	O
Mineral oil	+	+
Caustic soda 5 %	+	+
Caustic soda 25 %	+	+
Caustic soda 50 %	+	+
Sodium bisulphate, saturated	+	+
Sodium carbonate 20 %	+	+
Sodium chloride (salt solution 10 %)	+	+

Chemical	CE 44	CM 74/CE 79
Sodium phosphate, saturated	+	+
Sodium sulphate, saturated	+	+
Oleic acid–Oxalic acid, saturated	–	+
P3 solution	O	+
Paraffin oil, pure	+	+
Phosphoric acid 2 %	+	+
Phosphoric acid 10 %	–	O
Propylene glycol, pure	+	+
Nitric acid 50 %	–	–
Nitric acid 25 %	–	–
Nitric acid 10 %	–	O
Nitric acid 5 %	–	+
Hydrochloric acid 2 %	+	+
Hydrochloric acid 20 %	–	O
Hydrochloric acid 5 %	–	+
Sulphuric acid 50 %	–	–
Sulphuric acid 5 %	–	+
Sulphuric acid 2 %	O	+
Sodium carbonate 20 %	+	+
Cooking oils, pure	+	+
Spindle oil	+	+
Turpentine	+	–
White spirit, pure	+	–
Water vapour 100 °C	–	O
Water	+	+
Citric acid 10 %	–	+
Citric acid 2 %	O	+

Additional information

The technical data given in the chemical resis-tance table is based on lab test results that are more or less applicable to practical on-site conditions. The material was tested for 1000 hours with a standing medium. In the case of moving chemicals (liquids) and temperatures above +20 °C, a lower resistance is to be expected. If the resistance to a test medium is "limited", this means that the respective product is resistant to this test medium as long as it is only exposed occasionally and for a short time. In such cases of occasional contact with this chemical, it is important to immediately or regularly clean and dry the point of contact in order to ensure long-term reliable bonding or grouting. Discoloration, however, may occur and also remain.

Key to resistance symbols

– = not resistant
O = short-term exposure of 24 h will not damage the test piece
\+ = resistant; even in the case of constant exposure of 4 weeks, the test piece will not be damaged

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