

CE 47

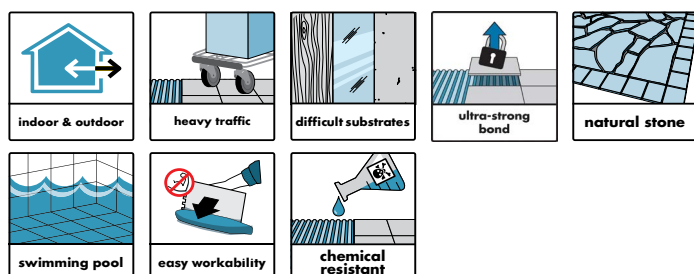
ULTRAEOXY INDUSTRIAL

Two-component, chemical-resistant epoxy mortar for installation and grouting of tiles and stones



CHARACTERISTICS

- ▶ Waterproof
- ▶ Easy application and cleaning
- ▶ Chemical resistance and mechanical attack
- ▶ Vertical slip resistance
- ▶ Internal and external applications



PRODUCT SCOPE

For the chemically and permanently resistant installation 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 installation 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 area sand brackish water.

APPLICABLE STANDARDS

Tested according to ANSI A118.3

SUBSTRATE PREPARATION

CE 47 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. Check that the tiles do not present problems of cleaning or surface absorption. Some kinds of tiles (e.g. polished porcelain tiles) and natural stone have rough, microporous surfaces, making them susceptible to staining and very difficult to clean. In this case preliminary application checks should be performed. Avoid using grouts with contrasting or excessively dark colors.

APPLICATION

CE 47 consists of two components supplied in one container. Component A consists of an epoxy resin mixture, siliceous



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1

aggregates and additives. Component B consists of a mixture of organic catalysts.

Mixing

Add the hardener (component B-catalyst) contained in the plastic bag 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. Scrape the sides and the bottom of the container, using a steel spatula, to make sure that all the paste is catalyzed. Hand mixing is not recommended. The two parts are pre-batched in their packaging, avoiding, this way, all risk of mixing errors. Do not add water or solvents to improve workability.

Installation of tiles and stones:

CE 47 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 the local norms.

Grouting

Apply the CE 47 mixture with an epoxy grouting board to the dry and clean ceramic coverings, filling the joints completely and without any cavities. Then remove any excess material by skimming it diagonally off the tile surface.

Cleaning and finishing

The grout work must be cleaned and finished while the product is still wet and in any case in the shortest possible time. Take care not to remove product from the joints or leave stains on the tile surface.

Use as adhesive

Apply to the substrate using a trowel with suitable notch size, then position the tiles and press firmly into place.

PLEASE NOTE

- The product's pot life and hardening time is strongly dependent on the ambient temperature.
- The ideal temperature for application is between +10 and +40°C. In these conditions the product is an easily workable smooth mortar, with a pot life of about 1 hour. It is ready for foot traffic after 24 hours.
- The white colored product tends to take on an ivory shade over time.
- Some kinds of tiles (e.g. polished porcelain tile) and natural stone have rough, microporous surfaces, making them susceptible to staining and very difficult to clean. In this case preliminary test application should be performed. Avoid using grouts with contrasting or excessively dark colors.
- Remove excess product from the tile surface rapidly because once hardened it will have to be removed mechanically, seriously jeopardizing the finished result.
- Do not use for applications not stated on this technical sheet.

SUPPLY

Ceresit CE 47

5 kg (Part A + Part B)

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. 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 at laboratory conditions 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.

TECHNICAL DATA

Base	Epoxy resin with mineral fillers and additives
Mixed density, [g/cc]	1.8+/-0.05
Mix ratio	92g Part A + 8g Part B
Application temperature, [°C]	10 to 40
Application time at 23°C, [minutes]	≥ 80
Water clean-ability, [minutes]	≥ 80
Sag in vertical	Pass
Initial setting time, [hours]	>2
Final setting time, [days]	≤ 7
Shear bond strength to quarry tiles at 14 days, [Psi]	>1000
Compressive strength at 7 days, [MPa]	>70
Tensile strength at 7 days, [MPa]	≥ 6.85
Linear shrinkage, [%]	≤0.25
Chemical resistance	Resistant
VOC, [g/L]	<50
Standard compliance	ANSI A 118.3

Consumption

a) Once used as tile adhesive, kg/m²/1 mm thick : ~1.8

b) Once used as tile grout

Tile size in cm	Tile thickness mm	Joint width mm	Amount kg/m ²
5 / 5	5	4	approx. 1.4
10 / 10	8	4	approx. 1.15
15 / 15	6	6	approx. 0.86
10 / 20	6	6	approx. 0.97
10 / 20	10	8	approx. 2.16
20 / 20	10	8	approx. 1.44

All values given are subject to 5-10% tolerance