
Coverflex

Technical specifications



TWO-COMPONENT CEMENTITIOUS MORTAR, ELASTIC UP TO -20°C, CHLORINE-RESISTANT, APPLICABLE WITH ROLLER AND BRUSH, FOR WATERPROOFING OF INDOOR WET AREAS, BALCONIES, TERRACES, TANKS AND SWIMMING POOLS IN CLASS CMO2P ACCORDING TO UNI EN 14891 PRODUCT WITH LOW VOLATILE ORGANIC COMPOUND EMISSION RATE.

Product description

Two-component cementitious mortar.

The powder part is made up of cements, inert fillers and special organic additives.

The liquid part consists in a synthetic resin in aqueous dispersion, solvent-free and highly elastic even at very low temperatures.

By mixing the two components together (already pre-batched in their respective packaging), a plastic mortar is obtained, easy to apply with a smooth trowel, roller and brush, particularly adhesive and fluid, which can be applied to floors and walls with no dripping up to a maximum thickness of 2 mm.

ADVANTAGES / FEATURES

Very high elasticity and impermeability

Excellent adhesion to concrete, all cementitious substrates and also smooth, compact and non-absorbent substrates such as ceramic and porcelain tiles, natural and polished stones, without the need for primer

For interior and exterior wall and floor coverings

Allows waterproofing repairs on balconies and terraces directly over the existing ceramics without the need for demolition

Maintains excellent workability over time, without any bothersome thickening

Product with low volatile organic compound emission rate, compliant with Class A+ according to French Regulations

Rapid installation times since it can also be applied with a roller and brush.

Ideal for large surfaces or complex structures making application with a smooth trowel difficult
Retains its flexibility even at very low temperatures (-20°C), making it suitable for application in particularly cold climates

PACKAGES

Part A (powder) 20 kg bags
Part B (liquid) 10 kg cans

FIELDS OF APPLICATION

Installation environments

Interiors - exteriors
Floors and walls
Underfloor heating
Indoor wet areas (bathrooms, shower enclosures)
Overlaying
Terraces and balconies
Residential, public, commercial building
Industrial floors
Tanks, swimming pools, fountains
SPA and Hammam

Suitable substrates:

Cement screeds
Self-levellers
Cement levellers
Existing tiles
Existing agglomerates
Underfloor heating systems
Concrete
Gypsum
Fibre cement slabs
Gypsum-based plasters
Aerated concrete
Cement plasters
Wood panels, type CTBH
Lightweight panels

WATERPROOFING PLANNING

The only way to guarantee the long-lasting performance of ceramic and porcelain tile installations is to properly plan the process. It is therefore advisable to consult the national regulations in force in each country, for example standard UNI 11493 in Italy, which provides all necessary instructions regarding the choice of materials, correct planning, use and installation, so as to ensure all quality, performance and durability standards are safely met.

When installing large tiles or low thickness laminated porcelain stone slabs, we recommend consulting paragraphs 7.13.8 and 7.13.9 of Standard UNI 11493. Moreover, certain producers of thin slabs provide installation manuals indicating the adhesive classes that need to be used depending on the size, characteristics and intended use of the slabs.

Some of the general precautions that need to be followed are listed below as an example.

Substrates

Before installation, check that substrates are clean, free of loose fragments, properly dried and cured, flat and level, and that mechanical strength requirements based on the intended use have been met.

Before application, use a hygrometer to check that the residual humidity in the substrate is maximum 3% CM; on anhydrite screeds maximum 0.5% CM; on anhydrite screeds with heating systems maximum 0.2% CM. (CM = measurement with carbide method hygrometer).

Worksite conditions

Check the suitability of the temperature, humidity, light conditions etc. at the time of the product's application.

In the case of particularly warm climates ($T > 35^{\circ}\text{C}$), perform installation in the

early hours of the morning.

Materials

Check that all materials used for tiling (ceramic materials, levelling systems, adhesives, grouts, waterproofing products, etc.) are suitable for the intended use and have been correctly stored.

Expansion joints

Check that the perimeter, expansion, divider and structural elastic joints have been correctly designed and prepared. Usually, separation joints should be provided for sections of 20/25 m² or 9-15m² outdoors. For exteriors, make sure joints are properly waterproofed and sealed.

The waterproofing of expansion joints must be carried out by inserting the HydroBand Anti-Fracture sealing tape, folded in an omega shape, inside the joint. To reduce the thickness, allowing the silicone sealant to adhere only to the sides of the tiles, insert the Litogap compressible tubing first, in a diameter suited to the width of the joint. Litokol proposes the neutral cross-linking silicone sealant, Ottoseal S70 for the sealing of elastic joints on terraces, balconies and in swimming pools. To guarantee long-lasting sealing, it is advisable to treat the edges of the joint with Ottoprimer 1216 in the case of balconies and terraces, and Ottoprimer 1218 in the case of tanks and swimming pools.

When waterproofing indoor wet areas such as bathrooms and shower enclosures, or external areas such as balconies, terraces and swimming pools, critical points such as corners, drains, pipework and expansion joints must be very carefully sealed.

Litokol proposes a wide range of sealing elements that must be laid between the first and second coat of the waterproofing membrane. This range includes the following items:

HydroBand Anti-Fracture: sealing tape with a double layer of polypropylene fabric and waterproof thermoplastic elastomer film inside, for corner and expansion joints.

HydroCorner Internal and External: pre-shaped elements for corner waterproofing in non-woven fabric and lined with waterproof rubber.

HydroDrain SA: drain gasket in self-adhesive butyl, resistant to ageing for the waterproofing of drains in different sizes and materials (PVC, metal). Suitable for applications in the presence of low pressure water.

HydroCollar: special gaskets for pipes made from a non-woven fabric with a flexible membrane at the centre, for the waterproofing of pipes with various diameters.

PREPARATION OF SUBSTRATES

The substrates must be clean, solid, compact, crack-free, properly cured and without rising damp.

If the substrate is not perfectly flat or the level is incorrect, it can be evened before installation using suitable levelling or self-levelling products, such as X-Plan ProLevel or HydroLevel.

In the case of surfaces exposed to frequent wetting such as balconies, terraces, shower floors, etc., check that the slopes and dimensioning of the drain systems are adequate to allow the proper outflow of water considering the width of the exposed surface and maximum expected wet conditions. Generally, a slope of 1-1.5% is sufficient to guarantee the correct outflow of water. Cementitious substrates can be evened or sloped using the HydroLevel rapid skim coat.

Use of primer:

Smooth and compact substrates, such as old ceramic or marble tiles, must be adequately degreased with specific detergents like X-Cleaner Scrub

In anhydrite screeds, check for the presence of a suitable vapour barrier in order to prevent rising damp. Use a carbide method hygrometer to check

that the residual humidity is less than 0.5%. The surface must be sanded and treated with X-Primer

Any cracks or fissures must be repaired with Multifondo EVO, sprinkling the fresh surface with sand or dried quartz with a 0.4-1 mm granulometry

In any case, the respective technical data sheets must be consulted for correct use of the indicated products.

MIX RATIO

Component A (powder) 20 kg (1 bag) + Component B (liquid) 10 kg (1 can)

PREPARING THE MIX

Pour component B (liquid) into a clean container and add component A (powder) while stirring.

Mix, preferably using an electric drill with mixing paddle at low speed ($\approx 300/\text{min.}$) until a consistent mix is obtained without lumps.

Let the mix rest for about 5 minutes and then briefly mix again for a few seconds.

The two components are pre-batched in their packaging, thus preventing mixing errors.

Manual mixing or the partial mixing of the two components is not recommended.

Do not add more water to the mix once setting has begun.

APPLICATION

In the presence of drains, lay the special HydroDrain SA sealing pieces.

At corners, expansion joints and pipe penetrations, insert the sealing elements HydroBand Anti-Fracture, HydroCorner Internal or External and HydroCollar onto the fresh layer of product.

Apply a first layer directly onto the substrate with a roller, brush or smooth steel trowel and at the same time, lay the Litomesh anti-alkaline glass fibre reinforcing mesh on the fresh product, avoiding the formation of folds and overlapping the rolls by at least 10 cm.

The product must be applied within 60 minutes.

Once the first layer has set (approx. 3-4 hours at $T=+23^{\circ}\text{C}$) apply the second layer of product so as to obtain a final thickness of at least 2 mm, completely covering the mesh and all sealing elements.

After the application of the second coat, wait 5 days for curing before installing the ceramics, natural stones or mosaics.

In favourable weather conditions, the curing time can be reduced to 24 hours.

INSTALLATION OF TILES

Coverings must not be installed until at least 24 hours after the last coat.
The installation of ceramic tiles, natural stones or mosaics can be carried out with ultra-high performance science-based Gels by Litokol, which ensure the complete transfer of forces, continuous system performance and total safety. The choice of adhesive depends on the size of the tiles and expected operating conditions.

In the case of large tiles (side > 60 cm), it is preferable to use deformable adhesives in class S1 or highly deformable adhesives in class S2.

The tiles must be installed with a solid bed using the back-buttering technique, with joint widths suited to their size.

For the correct choice of adhesive, refer to the technical data sheets of the products.

WARNINGS

Apply the product at temperatures between +5°C and +35°C

Do not add lime, cement or other foreign materials to the product

Respect the mixing ratio

Do not dilute the product with water

The pot life is about 60 minutes at a temperature of +23°C. Be sure to mix only the quantity of product that can actually be used within this period of time

Do not apply the product with thickness > 2 mm per coat

Protect the waterproofing against rain for the first 24 hours after application

The product must not be visible upon completion. Always apply a ceramic, natural stone or mosaic covering

In warm climates, keep the packaged product in a cool and dry place away from the sun before use

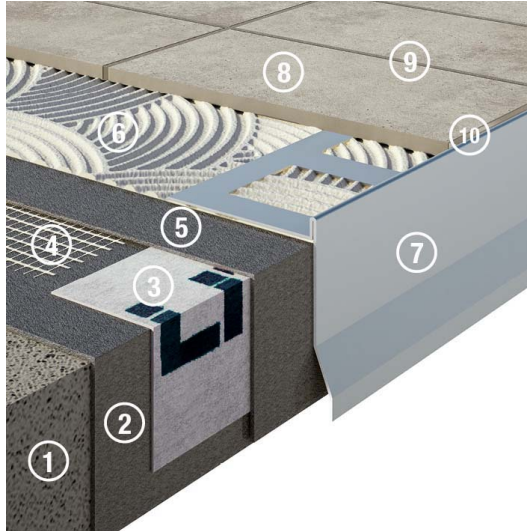
Do not apply the product on plastic, resilient, wood, metal materials or resin-treated substrates

Do not apply the product on damp surfaces or surfaces subject to rising damp

Do not use the product for applications not indicated in this technical data sheet

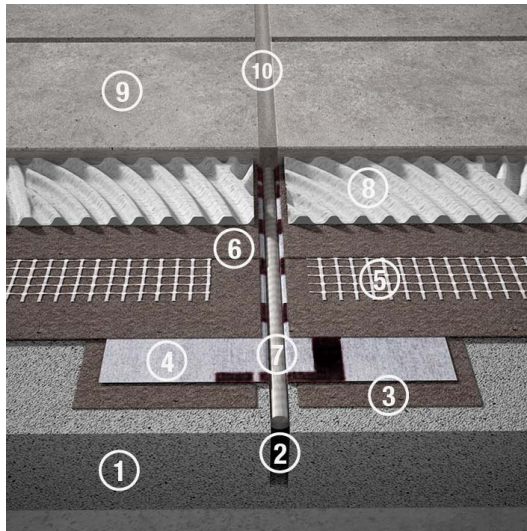
In case of doubt, contact the Litokol Technical Help Service at +39-0522-622811 or via customercare@litokol.com

FOCUS



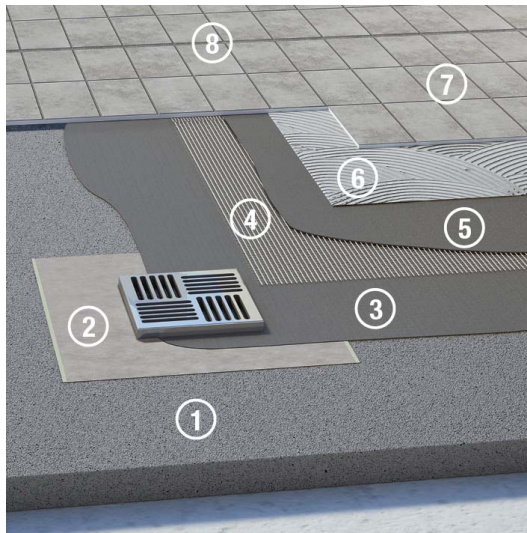
Protection of fronts and edges against outflow

- 1 – Screed
- 2 – Coverflex (1st coat)
- 3 – HydroBand Anti-Fracture
- 4 – Litomesh
- 5 – Coverflex (2nd coat)
- 6 – Litokol Gel or class C2 / R2 adhesive
- 7 – Drip tray
- 8 – Tile
- 9 – Starlike Pro/ Starlike Easy/ StyleGrout
- 10 – Pixel 3D



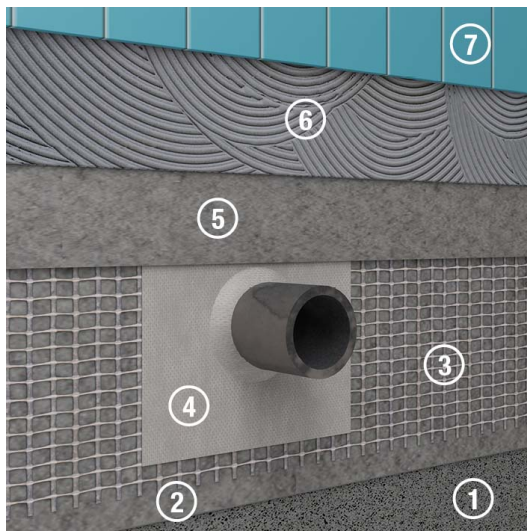
Waterproofing of control joints

- 1 – Screed
- 2 – Joint
- 3 – Coverflex (1st coat)
- 4 – HydroBand Anti-Fracture
- 5 – Litomesh
- 6 – Coverflex (2nd coat)
- 7 – Litogap
- 8 – Litokol Gel or class C2 / R2 adhesive
- 9 – Tile
- 10 – Pixel 3D



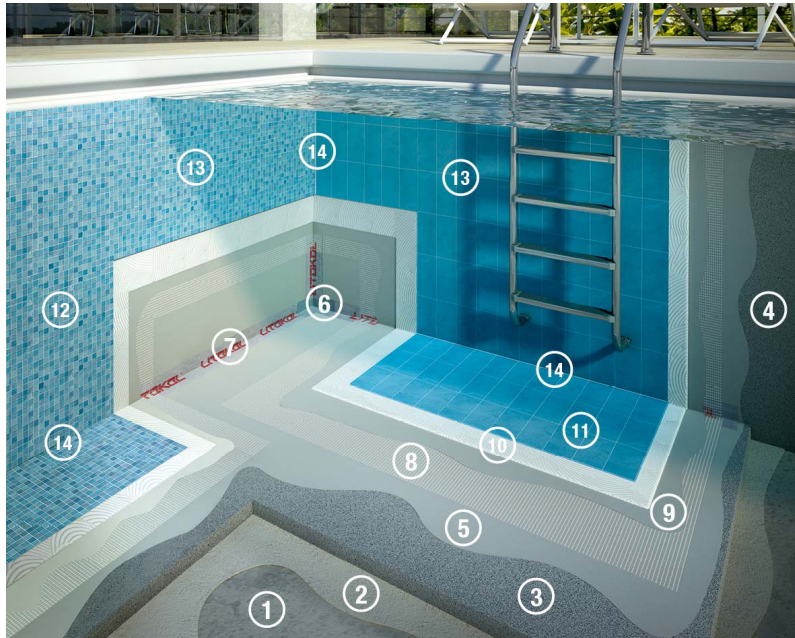
Waterproofing of drains

- 1 – Screed
- 2 – HydroDrain SA
- 3 – Coverflex (1st coat)
- 4 – Litomesh
- 5 – Coverflex (2nd coat)
- 6 – Litokol Gel or class C2 / R2 adhesive
- 7 – Tile
- 8 – Expansion joint



Waterproofing of through-elements

- 1 – Substrate
- 2 – Coverflex (1st coat)
- 3 – Litomesh
- 4 – HydroDrain SA
- 5 – Coverflex (2nd coat)
- 6 – Litokol Gel or class C2 / R2 adhesive
- 7 – Tile



Waterproofing of swimming pools, hammams and thermal baths

- 1 – Concrete
- 2 – Bonding slurry
- 3 – x-Floor or X-Floor Pro
- 4 – HydroLevel 1-30
- 5 – Coverflex (1st coat)
- 6 – HydroCorner Internal
- 7 – HydroBand Anti-Fracture
- 8 – Litomesh
- 9 – Coverflex (2nd coat)
- 10 – Litokol Gel or class C2 / R2 adhesive
- 11 – Tile
- 12 – Mosaic
- 13 – Starlike Pro / Starlike Easy / StyleGrout
- 14 – Pixel 3D

- It is advisable to perform a hydraulic seal test before installing the covering
- Once waterproofing is complete, allow it to cure for at least two days before performing a seal test

SAFETY INFORMATION

Consult the product safety data sheet, available on request.
PRODUCT FOR PROFESSIONAL USE

ITEM SPECIFICATION

#The waterproofing of indoor wet areas such as bathrooms and shower enclosures and outdoor areas such as balconies, terraces, tanks and swimming pools in preparation for the installation of ceramic materials, natural stones and mosaics, must be carried out with a two-component, elastic waterproofing cementitious mortar in class CMO2P according to UNI EN 14891, such as Coverflex by Litokol Lab S.p.A.

IDENTIFICATION DATA

Appearance	Component A: white powder
Appearance	Component B: white liquid
Colour	Light grey
Customs code	38245090
Shelf life	12 months in original packaging in a dry place. Protect against frost.

APPLICATION DATA

Mix ratio	Component A (powder): 2 parts (1 x 20 kg bag) - Component B (liquid): 1 part (1 x 10 kg can)
Consistency of mix	Fluid paste
Mix curing time	5 minutes
pH of mix	13
Specific gravity of mix	1.60 kg/dm ³
Pot life	Approx. 60 minutes
Thickness per coat	< 2 mm
Total thickness	2 mm
Application	Smooth steel trowel, roller or brush
Application temperatures	From +5°C to +35°C
Waiting time between coats	3-4 hours
Waiting time for installation of covering	5 days. 24 hours in good weather
Temperature of use	From -20°C to +90°C
How to clean equipment	With water when product is fresh. Mechanically when product has set.
Consumption	1.6 kg/m ² per mm of thickness

PERFORMANCE

Compliance	EN 14891	CM 02 P
Initial tensile adhesion strength	≥ 0.5 N/mm ²	UNI EN 14891-A.6.2
Tensile adhesion strength after water immersion	≥ 0.5 N/mm ²	UNI EN 14891-A.6.3
Tensile adhesion strength after thermal ageing	≥ 0.5 N/mm ²	UNI EN 14891-A.6.5
Tensile adhesion strength after freeze/thaw cycles	≥ 0.5 N/mm ²	UNI EN 14891-A.6.6
Tensile adhesion strength after contact with limewater	≥ 0.5 N/mm ²	UNI EN 14891-A.6.9
Crack-bridging capacity in normal conditions	≥ 0.75 mm	UNI EN 14891-A.8.2
Tensile adhesion strength after contact with chlorinated water	≥ 0.5 N/mm ²	UNI EN 14891-A.6.7
Water impermeability in positive pressure	No penetration and increase in weight < 20 g	UNI EN 14891-A7
Crack-bridging capacity at very low temperature (-20°C)	≥ 0.75 mm	UNI EN 14891-A.8.3

NOTES

Data detection at temperature +23 °C, R.H. 50% and with no wind. May vary depending on the specific conditions of the installation site.

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Litokol

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