

Litoacril Plus

HIGH-PERFORMANCE ADHESIVE IN DISPERSION WITH NO VERTICAL SLIP AND EXTENDED OPEN TIME FOR THE INSTALLATION OF CERAMIC AND PORCELAIN TILES ALSO IN INDOOR WET AREAS. SUITABLE FOR OVERLAYING AND UNDERFLOOR HEATING.



DESCRIPTION

Ready-to-use adhesive in dispersion made from synthetic resins in aqueous emulsion, selected aggregates and organic additives.

ADVANTAGES / FEATURES

- Allows the installation of ceramic, porcelain and mosaic wall coverings without the need for plastic spacers
- Suitable for installation on heating screeds
- Suitable for overlaying on existing flooring
- Bonding on all types of ceramic, porcelain and mosaic tiles, in interiors on floors and walls
- Ideal for application on gypsum-based plasters with no need to apply a primer beforehand
- The special additives give the product a very fluid texture and facilitate application using a notched trowel
- Product exempt from restrictions for road, sea, air and rail transport

PACKAGING

5 kg buckets - 875 kg standard pallet
1 kg buckets (boxes with 24 buckets) – 384 kg standard pallet

INTENDED USE

Intended uses	Suitable materials	Suitable substrates
Interiors	Ceramic and porcelain tiles	Cement screeds
Floors and walls	Porcelain stoneware	Self-levellers
Underfloor heating	Ceramic mosaics	Skim coats
Residential, public, commercial building	Terracotta - Clinker	Existing tiles
Ceilings	Marble – Granite – Stone	Gypsum and anhydrite
Indoor wet areas (bathrooms, shower enclosures)	Natural stones	Underfloor heating systems
Overlaying	Insulating panels	Concrete
	Polystyrene panels	Gypsum
	Soundproof panels	Fibre cement slabs
	Elements in cement	Wood panels, type CTBH and CTBX
	Glass wool	Aerated concrete
	Rockwool	Plasters
	Cork	Insulating panels
	Double fired	Lightweight panels
	Single fired	

For example, it can also be used to install suitable materials in the following areas:

Interior floors in residential and public/commercial settings (pedestrian areas)	
Substrates	Longest allowable tile side (cm)
Cement or Litocem/Litocem Pronto-based non-heating screeds	up to 45
Cement or Litocem/Litocem Pronto-based heating screeds	up to 30
Sulphate-based (anhydrite) non-heating screeds	up to 45
Sulphate-based (anhydrite) heating screeds	up to 30
Wood panels	up to 45
Interior walls in residential, public/commercial and industrial settings	
Substrates	Longest allowable tile side (cm)
Lime/cement plaster	up to 60
Gypsum-based plaster	up to 60

Cast-in-place concrete (2)	up to 45
Pre-cast concrete	up to 45
Fibre cement and cement panels	up to 45
Gypsum slabs	up to 45
Wood panels	up to 45

Key

- (1) After treatment with Primer C or Primer X94. Maximum humidity = 0.5%.
- (2) Curing time: minimum 6 months.
- (3) After cleaning and degreasing with Litoscrub EVO.
- (4) After treatment with the adhesion promoter Prepara Fondo EVO.
- (5) After treatment with Primer C or Primer X94 for non-waterproof gypsum.
- (6) After treatment with Primer X94.

INSTALLATION 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.

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.

Worksite conditions

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

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. Divider joints are normally needed for 20/25 m² indoor sections, and 9-15m² outdoor sections. For exteriors, make sure joints are properly waterproofed and sealed.

Back-buttering

For exterior installations, large tiles, floors with intense or heavy traffic, vibrating supports and situations exposed to high temperature fluctuations, the adhesive mortar must be applied to both the substrate and the back of the tiles so as to obtain a solid bed of adhesive without any air bubbles.

Joints

In any type of ceramic and porcelain tiling, suitably sized joints must be created based on the following parameters:

- Type, format and size tolerance of tiles
- thermal expansion coefficients of tiling materials
- mechanical properties of installation materials
- position and trajectory of joints
- mechanical features of substrate
- Intended use and operating conditions

Butt joints are not allowed. Any plastic spacers must be removed before grouting.

PREPARATION OF SUBSTRATES

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

- Smooth and compact substrates such as smoothed concrete, existing ceramic or agglomerate coverings, must be properly degreased with specific detergents such as Litoscrub EVO
- In the case of 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
- Any cracks must be repaired with Multifondo EVO, sprinkling the fresh surface with sand or dried quartz with granulometry 0.4-1 mm

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

PREPARING THE MIX

Ready-to-use product without the need for any preparation.

In any case, once the container has been opened, we recommend mixing the product briefly, even manually, with a steel trowel or spatula.

APPLICATION

Spread the mix onto the substrate using the smooth part of the trowel to create a layer approximately 1 mm thick. Immediately afterwards, apply the product using the notched part of the trowel.

The trowel notch size will depend on the size of the tiles.
In any case, a back coverage of 65-70% of tiles must be possible.
The tiles must be laid on the adhesive when fresh, firmly pressed to ensure good contact.
The product's open time in normal temperature and humidity conditions is approximately 30 minutes.
Very warm or windy climates, or particularly absorbent substrates may drastically reduce it to a few minutes. It is therefore recommended to regularly check that the adhesive has not skinned over.
The tiles must be installed with joint widths suitable for their size.
Take account of any expansion, perimeter, divider or structural joints.
Leave a space of at least 5 mm near walls or any surface elevations.
The tiled surface must be protected for at least 10 days against any rain wash.
Tiled surfaces are ready for use after about 7 days.

FOCUS

Marble, natural and recomposed stones

Materials subject to deformation or stains due to water absorption require a quick-setting (C2F) or reactive (R2) adhesive. Marble and natural stones, even if similar in nature, may have different characteristics. In case of doubt, contact the Litokol S.p.A. Technical Help Service for detailed information or to perform a laboratory test. Natural stone slabs with reinforced backing (resin, mesh, etc.) or specific treatments (for example anti-rising damp, etc.), unless otherwise prescribed by the manufacturer must be tested for compatibility with the adhesive. Before installation, check for any traces of dirt or material deposits on the back of the slabs. If so, these must be removed.

Underfloor heating

After at least 4 days from installation of the screed developed with Litocem or Litocem Pronto, the heating system can be used with a variable supply water temperature between +20°C and +25°C, kept constant for at least 3 days.

Then set the maximum design temperature and hold it for another 4 days. At the end of this cycle, bring the screed back to ambient temperature and install the covering (see standard EN 1264-4).

Bonding of insulation panels

It can be applied either with a notched trowel or in certain points, nonetheless in accordance with the product's open time.

In any case, the quantity of adhesive applied should be sufficient to ensure the panels are securely bonded.

The slabs must then be installed by applying adequate pressure to obtain a suitable level of adhesion.

GROUTING

Joints can be grouted after approximately 6-8 hours in the case of wall tiles and after 24 hours in the case of floor tiles.

For grouting, it is possible to use the cementitious grouts Stylegrout 0-8, Stylegrout 3-20, Stylegrout Tech or the ready-to-use polymer mortar FillGood EVO, or, for grouting with special mechanical and chemical resistance, the two-component epoxy grouts Starlike® EVO or EpoxyÉlite EVO.

WARNINGS

- Spread the product at temperatures between +5°C and +35°C
- Since the product is based on synthetic resins in aqueous dispersion, it must be protected against frost. When packages are transferred and stored in a warehouse, the temperature must not fall below +5°C so as not to compromise the quality of the product
- The product is in aqueous dispersion and its setting occurs by way of water loss. Check that the substrate and tiles are sufficiently absorbent to allow the adhesive to dry
- Do not use the product on floors that need to quickly set to light foot traffic
- Do not spread the product with thickness greater than 5 mm
- Do not use the product to install thin slabs
- Do not use the product to install thin slabs with glass fibre mat backing
- Do not use the product to install non-absorbent tiles on non-absorbent substrates
- Do not use the product for applications not stated in this technical sheet
- Do not add lime, cement or other foreign materials to the product
- Do not use the product on plastic, resilient, wood, metal materials or resin-treated substrates
- Do not use the product on damp surfaces or surfaces subject to rising damp
- To identify the adhesive most suitable to the requested type of application, it is recommended to consult the document "Synoptic table for choice of adhesives"
- In warm climates, keep the packaged product in a cool and dry place away from the sun before use
- Do not use the product to install ceramics on exterior surfaces or surfaces in continuous contact with water such as tanks, swimming pools, etc.
- Before installing the flooring, always check the residual humidity using a carbide method hygrometer
- If in doubt, contact the Litokol S.p.A Technical Help Service.

SAFETY INFORMATION

Consult the product safety data sheet, available on request.

PRODUCT FOR PROFESSIONAL USE

ITEM SPECIFICATION

#Ceramic and porcelain floor and wall coverings will be installed using a high-performance adhesive in dispersion with no vertical slip and extended open time in class D2 TE according to EN 12004, such as Litoacril Plus by Litokol S.p.A.

IDENTIFICATION DATA

Appearance	Thick paste
Colour	White
Customs code	35069190
Shelf life	24 months in original packaging in a dry place. Protect against frost.

APPLICATION DATA

Mix ratio	Ready-to-use product without the need for any preparation.
Consistency of mix	Thixotropic paste
pH of mix	7,5 - 8,5
Specific gravity of mix	1,60 kg/dm ³
Bonding time	60 minutes
Applicable thicknesses	From 1 to 5 mm
Application	Notched trowel
Application temperatures	From +5°C to +35°C
Waiting time for grouting	Wall: 6-8 hours – Floor: 24 hours
Set to light foot traffic	24 hours
Ready for use	7 days
Temperature of use	From -30°C to +90°C
How to clean equipment	With water when product is fresh. Mechanically when product has set.
Consumption	3.5 mm trowel: 1.5 kg/m ²
Consumption	6 mm trowel: 2.5 kg/m ²
Consumption	8 mm trowel: 3 kg/m ²
Consumption	10 mm trowel: 3.5 kg/m ²

PERFORMANCE

Compliance	EN 12004 – ISO 13007	D2 TE
Initial shear adhesion strength	≥ 1.0 N/mm ²	EN 1324
Shear adhesion strength after water immersion	≥ 0.5 N/mm ²	EN 1324
Shear adhesion strength after heat action	≥ 1.0 N/mm ²	EN 1324
Shear adhesion strength after high temperatures	≥ 1.0 N/mm ²	EN 1324
Open time	≥ 0.5 N/mm ² after 30 minutes	EN 1346
Slip	≤ 0.5 mm	EN 1308
Resistance to alkalis	Low	
Resistance to acids	Low	

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.

Data Sheet **n. 204**
Revision **n. 3**
Date: **January 2021**

The information and provisions contained in this technical data sheet reflect our best experience. Given the impossibility of directly intervening on the conditions of the work site and execution of the works, they represent indications of a general nature, which are in no way binding on our Company. It is therefore advisable to perform a spot test to check the suitability of the product for the intended use. In any case, users must determine whether or not it is suitable for the intended use and shall assume all associated responsibility.

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