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# X-Fix®

## Technical specifications

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**Professional adhesive with high fixing strength, zero vertical slip and long adjustment time (>30 min), for the installation of ceramic and porcelain tiles on cementitious substrates, for flooring and coverings. Up to 15 mm thick**

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### Product description

Professional adhesive for the installation of tiles on cementitious substrates, for flooring and coverings. It ensures high fixing, no vertical slip and an extra creamy thixotropic consistency. With a long open time and an adjustment time of over 30 minutes, it develops high slip resistance and it is suitable for thicknesses up to 15 mm. For interiors and exteriors.

Classified C1TE - EN 12004

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### Performance

Thixotropic  
Extra creamy  
Extended open time > 30 min  
Adjustability time > 30 min  
High slip resistance

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### Certifications

EN 12004  
ISO 13007  
EC1 Plus Gev Emicode  
A+ Emissions dans l'air intérieurs  
EPD Environmental Product Declaration

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## X-Fix® and the Environment

LCA results for Global Warming Potential – Greenhouse Gas GWP-GHG							
Impact category	Unit	A1-A3	C1	C2	C3	C4	D
Climate change GWP-GHG	kg CO2 eq	4.33 10 <sup>-1</sup>	4.38 10 <sup>-3</sup>	1.08 10 <sup>-2</sup>	0	4.90 10 <sup>-3</sup>	-5.52 10 <sup>-3</sup>

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## Materials

Ceramic and porcelain tiles  
Terracotta - Clinker  
Marble – Granite – Stone  
Natural stones  
Porcelain stoneware

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## Substrates

Cement screeds  
Self-levellers  
Skim coats  
Concrete  
Gypsum  
Gypsum and anhydrite  
Plasters

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## Uses

Interiors - exteriors  
Floors and walls  
Residential, public, commercial building

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## Limitations

Refer to national regulations, such as Standard UNI 11493  
Ensure full bedding outdoors  
Protect the tiled surface against rain for at least 24 hours  
Temperature, ventilation, substrate absorption and installation material can change the workability and setting times of the adhesive  
Do not add water to the mixture when it has already begun to set  
Do not use on inadequately cured concrete  
Do not use on gypsum or anhydrite-based substrates without first applying X-Prime®  
Do not use on wood and wood-based panels  
Do not use on metal, rubber, PVC or linoleum surfaces  
Do not use on floors that need to quickly set for light foot traffic  
Do not use on reactive waterproofing membranes of organic nature (such as RM according EN 14891)  
Do not use the product for applications not indicated in this Technical Data Sheet  
For further information, contact the Litokol Technical Help Service at +39-0522-622811 or via [customer care@litokol.com](mailto:customer care@litokol.com)

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## Product specifications

Appearance	Powder
Colour	White - grey
Responsible packaging	20 kg recyclable bag
Customs code	38245090
Preservation	12 months in original packaging in a dry place.

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## Technical specifications

Compliance	EN 12004 – ISO 13007	C1TE
Initial adhesion after 28 days	≥ 0.5 N/mm <sup>2</sup>	EN 1348
Adhesion after water immersion	≥ 0.5 N/mm <sup>2</sup>	EN 1348
Adhesion after heat action	≥ 0.5 N/mm <sup>2</sup>	EN 1348
Adhesion after freeze/thaw cycles	≥ 0.5 N/mm <sup>2</sup>	EN 1348
Open time	≥ 0.5 N/mm <sup>2</sup> after 30 minutes	EN 1346
Slip	≤ 0.5 mm	EN 1308
Resistance to humidity	Excellent	
Resistance to alkalis	Excellent	
Resistance to solvents	Excellent	
Resistance to acids	Low	
pH of mix	13	
Specific gravity	1.6 kg/dm <sup>3</sup>	

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## Specifications for application

Consistency of mix	Creamy thixotropic
Preparing the Grey adhesive mix	Water = 25-28% ~ 5- 5.6 l / 20 kg
Preparing the White adhesive mix	Water = 28-31% ~ 5.6-6.2 l / 20 kg
Mix curing time	5 minutes
Bonding time	30 minutes
Duration of mixture	Approx. 6 hours
Applicable thicknesses	From 1 to 15 mm
Application	Notched trowel suitable for the format and for the substrate
Application temperatures	From +5°C to +35°C
Waiting time for grouting	Wall: 6-8 hours – Floor: 24 hours
Ready for light foot traffic	24 hours
Ready for use	7 days
Temperature of use	From -30°C to +80°C
How to clean equipment	With water when product is fresh. Mechanically when product has set.
Consumption	3.5 mm trowel: ~ 1.8 kg/m <sup>2</sup>
Consumption	6 mm trowel: ~ 2.5 kg/m <sup>2</sup>
Consumption	8 mm trowel: ~ 3 kg/m <sup>2</sup>
Consumption	10 mm trowel: ~ 3.5 kg/m <sup>2</sup>
Consumption	Back-buttering: ~ 5 kg/m <sup>2</sup>
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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## Substrate preparation

In accordance with Standard UNI 11493-1, the substrates must be mechanically resistant and free of friable parts, and clear of grease, oils, paints, waxes and rising damp.  
Cement plasters must have a curing time of at least one week per cm of thickness.

Cementitious screeds must have a total curing period of at least 28 days or be made with the innovative anti-fracture screeds, X-Floor and X-Floor Pro.

Create slopes on balconies or pavements with the latest-generation anti-fracture levelling compound HydroLevel® 1-30.

Particularly dusty, porous and absorbent substrates must be treated with X-Prime®, an innovative primer and consolidating product.

Smooth and compact substrates such as polished concrete, old ceramic or marble tiles, must be treated with the latest-generation adhesion promoters, X-Activator® or X-Activator® Grip, after thorough cleaning with the specific detergent X-Cleaner® Scrub.

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

Use a carbide hygrometer to check that the residual humidity is less than 0.5% and 0.3% for heating screeds.

The surface must be sanded and isolated with X-Prime®.

Any cracks or fissures must be sealed with CrackRepair.

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

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## Preparing the mixture

Pour the right quantity of water into a container, depending on the application, and slowly add the product, mixing with a mechanical mixer until a homogeneous, lump-free mixture is obtained.

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

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## Application

To ensure the perfect adhesion of the adhesive to the substrate, apply a scratch coat of the mixture using the smooth side of the trowel, and then straight after apply the desired thickness with the notched side.

The trowel notch size must be chosen according to the format of the material to be installed and the substrate.

In accordance with Standard UNI 11493-1, use the back-buttering technique, applying the adhesive also on the back of the tiles to ensure complete wetting during installation outdoors or in particularly stressed areas.

To ensure the complete transfer of the adhesive to the back of the tiles, they must be laid on the still-fresh adhesive with adequate pressure.

The open time in standard 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.

In accordance with Standard UNIT 11493-1, the tiles must be installed with joint widths suitable for their size.

Respect any control or structural joints and create adequate expansion, separation and perimeter joints.

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## Special Applications

### Marble, natural and recomposed stones

Materials subject to deformation or stains due to water absorption require a quick-setting, self-curing Gel such as FastGel® or FastGel® S1+ (C2F - EN 12004) or a reactive Gel such as PowerGel® Pro or PowerGel® Pro Max (R2 - EN 12004).

Marble and natural stones, even if similar in nature, may have different features.

In case of doubt, contact the Litokol 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.

### Mixing with BoostGel®

For tiled surfaces subject to high stress, like heavy traffic areas, terraces, balconies and wet environments such as swimming pools, it is possible to partially or completely replace the mixing water with the additive BoostGel® in H<sub>2</sub>O phase.

Partially replacing the water with BoostGel® in a 1:1 ratio allows the adhesive to achieve C2TE S1 performance - deformable high-performance cementitious adhesive -, while completely replacing the water with BoostGel® allows the adhesive to achieve C2TE S2 performance - highly deformable high-performance cementitious adhesive.

These advanced solutions optimise the molecular structure of the adhesive, significantly reinforcing its adhesion, resistance to the elements and chemical agents, and durability.

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## Grouting, sealing and maintenance

For grouting, the decorative grouts X-Color® 0-6 or X-Color® 2-12 and the ready-to-use polymeric mortar FillGood® EVO can be used.

To create waterproof, highly colour-stable joints with greater chemical-mechanical resistance, use the decorative epoxy Gels from the Starlike® line.

For the elastic sealing of expansion, control and perimeter joints, use sealants from the Pixel 3D line.

For end-of-construction washing, cleaning, maintenance and surface protection, use specific Litokol detergents from the X-Cleaner and Starlike® Care lines.

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## Information regarding safety

For the safe use of our products, refer to the latest version of the Safety Data Sheet, available on the website [www.litokol.com](http://www.litokol.com)

PRODUCT FOR PROFESSIONAL USE

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## Legal notes

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 for our Company.

It is therefore recommended to perform a spot test in order to check the suitability of the product for the intended use. In any case, those who intend to use the product must establish whether or not it is suitable for the intended use, and in any case assume all liability for any consequences resulting from such use.

Always refer to the latest updated version of the Technical Data Sheet, available on the website [www.litokol.com](http://www.litokol.com)

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## Item specification

The installation, both indoors and outdoors, in accordance with Standards UNI 11493-1 and 11714-1, of floors and wall coverings made from all types of ceramics - porcelain stoneware, single-fired, double-fired, clinker and terracotta - dimensionally stable and non-staining stone material and mosaics, will be carried out using a professional Adhesive, resistant to vertical slip and with an extended open time of over 30 minutes, classified as C1 TE according to Standard EN 12004: X-Fix<sup>®</sup> by Litokol Lab SpA.

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