UltraGel®

Technical specifications

Ready-to-use flexible polymer gel, Fluidotixo® - C3, for the installation of small tiles, mosaics and porcelain stoneware indoors. Thixotropic and long open time.

Product description

Ready-to-use flexible polymer gel, for the installation of small tiles, mosaics and porcelain stoneware on interior floors and walls. Reusable Innovative formula with 100% pure gel in a H20 phase, cement-free, allowing direct application on gypsum-based substrates without the need for isolating primers. Characterised by excellent adhesion and a long working time. Designed for high practicality and ease of application and, thanks to latest-generation features, the mixture is extremely creamy, smooth and super easy to spread, while still maintaining high thixotropy.

Classified D1 TE - EN 12004

Proprietary Gel formula

Elastomeric gel with a blend of proprietary styrene-acrylic resins
High content of mineral aggregates and inorganic micro-fillers
Smart rheological stabilisers
Latest generation highly hydrophilic cellulose

UltraGel® embodies the ongoing scientific progress of Litokol.
Designed with innovative raw materials to improve the installation experience and safety, and to reduce the environmental impact

Mixture classification

Mix class	Smoothness level	Lightness index
C1 - Thick / Paste-like	Requires more force for spreading	Standard
C2 - Medium Consistency	Offers good workability, but drips	Standard
C3 - Fluid Thixotropic	Smooth and thixotropic	Lightweight
C4 - Dynamic Fluid Thixotropic	Highly fluid and thixotropic	Lightweight

Performance Gel

Super-high-performance ready-to-use polymer gel
Super smooth application thanks to the 100% Gel formula
Highly flexible
High adhesion to substrates
Extended workability time

Chemistry + intelligent

Pure gel in H2O phase
Does not contain cement
Not dangerous for applicators according to the CLP regulation
Not dangerous for the environment
Not dangerous for transport - AFR Free
Ready-to-use, reusable, prevents waste and material scraps
It maintains flexibility and all performance even after being opened and reclosed
Improves resource efficiency and prevents the disposal of unused product

Certifications

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

UltraGel® 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	$3.52\ 10^{-1}$	$4.38\ 10^{-3}$	$1.14\ 10^{-2}$	0	$4.30\ 10^{-2}$	$-1.90\ 10^{-2}$

Materials

Ceramic and vitreous mosaics
Porcelain stoneware
Ceramic and porcelain tiles
Terracotta - Clinker
Stable marble and natural stones

Substrates

Screeds
Self-levellers
Plasters
Gypsum
Gypsum and anhydrite
Underfloor heating systems
Waterproofing systems
Wood
Aerated concrete
Fibre cement slabs
Concrete

Uses

Floors - Walls
Interiors
Underfloor heating systems
Residential, public, commercial and street furniture

Limitations

Refer to national regulations, such as Standard UNI 11493.
Formulated with latest-generation polymers in aqueous dispersion, the product is sensitive to low temperatures. During the transport and storage phases, it is essential to ensure controlled temperature environments not lower than +5°C, to preserve its advanced performance and the integrity of the technological matrix.
The product is an aqueous dispersion and its hardening occurs through gradual water release. Make sure that the substrate and tiles have a sufficient degree of absorption to allow for the complete polymerisation of the Gel.
Do not apply on floors that need to quickly set for light foot traffic.
Do not apply in thicknesses greater than 5 mm.
Temperature, ventilation, substrate absorption and installation material can change the workability and setting times of the Gel
Do not apply the product on damp surfaces or surfaces subject to rising damp.
Do not use for the installation of non-absorbent tiles on non-absorbent substrates
Do not use for the installation of ceramics on outdoor surfaces or surfaces in continuous contact with water such as tanks, swimming pools, etc.
Do not add lime, cement or other foreign materials to the product.
Do not use on metal, rubber, PVC or linoleum surfaces.
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 customercare@litokol.com.

Product specifications

Appearance	Polymer gel in paste
Colour	White and Grey
Responsible Packaging	5, 10 and 25 kg post-consumer recycled plastic buckets
Shelf life	24 months in original packaging in a dry place. Keep away from frost
Customs code	35069190

Technical specifications

Compliance	**EN 12004 – ISO 13007**	**D1 TE**
Initial shear adhesion strength	≥ 1.0 N/mm^2	EN 1324
Shear adhesion strength after heat action	≥ 1.0 N/mm^2	EN 1324
Open time	≥ 0.5 N/mm^2 after 30 min	EN 1346
Slip	≤ 0.5 mm	EN 1308

Specifications for application

Mix ratio	Ready-to-use gel
Consistency of mix	Polymer Gel
pH of mix	7,5 - 8,5
Specific gravity of mix	1.60 kg/dm
Open time	> 30 minutes
Applicable thicknesses	From 1 to 5 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 12 h - Floor 24 h
Ready for light foot traffic	24 h
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
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.

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

Preparing the mixture

UltraGel® is a latest-generation polymer Gel, formulated to be immediately ready for use, without the need for preliminary mixing.
When opening a container, it is advisable to quickly activate the mixture, even manually with a trowel or a steel spatula, to ensure optimal homogeneity of the mixture and maximise its functional performance and application effectiveness.

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Application

To ensure the perfect adhesion of the Gel 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 Gel also on the back of the tiles to ensure complete wetting during installation in environments where the substrate might be subject to movements, expansion, or in particularly stressed areas.
To ensure the complete transfer of the Gel 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 Gel has not skinned over.
In accordance with Standard UNI 11493-1, the tiles must be installed with joint widths suitable for their size (at least 2 mm).
Respect any control or structural joints and create adequate expansion, separation and perimeter joints.

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.

Underfloor heating
After at least 4 days from the installation of the X-Floor® o X-Floor® Pro anti-fracture screed, 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).

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.

Warnings

Due to its high adhesion, it is advisable to wash tools and any product residues from the surfaces with water before the Gel hardens. Once the reaction is complete and the Gel has hardened, it can only be removed mechanically.

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
PRODUCT FOR PROFESSIONAL USE

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

Item specification

The indoor installation of small-sized tiles, mosaics and porcelain stoneware for floors and walls, in accordance with Standards UNI 11493-1 and 11714-1, will be carried out using a ready-to-use, flexible polymeric Gel, resistant to vertical slip and with an extended open time of over 30 minutes, classified as D1TE according to Standard EN 12004: UltraGel® by Litokol Lab SpA.

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Litokol

Litokol Lab Spa Via G. Falcone 13/1 42048 Rubiera RE Italy
Tel. +39 0522 622811 info@litokol.com www.litokol.com