
HydroLevel® 1-30

Technical specifications



A quartz-reinforced, anti-shrinkage, rapid-setting, self-curing multi-purpose structural leveller with controlled anti-fracture expansion, with a very low cement content, designed for levelling in swimming pools, terraces and showers, before installing porcelain stoneware and natural stone coverings

Product description

Multi-purpose quartz-reinforced structural leveling compound, anti-shrinkage and controlled expansion anti-fracture, with rapid self-polymerizing setting and very low cement content, for smoothing, leveling and creating slopes even in wet areas, constantly wet and underwater such as swimming pools, terraces and showers before laying porcelain stoneware and natural stone coverings.

HydroLevel 1-30 levels and fills thicknesses from 1 to 30 mm in new or pre-existing substrates, achieving a smooth finish.

It is suitable for substrate levelling in electric and hot water underfloor heating

Classified CT C25 F6 EN 13813

Certifications

CT C25 F6 EN 13813
 EC1 Plus Gev Emicode
 A+ Emissions dans l'air interieurs
 EPD Environmental Product Declaration

HydroLevel® 1-30 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	2.72 10 ⁻¹	4.38 10 ⁻³	1.08 10 ⁻²	0	4.92 10 ⁻³	-5.53 10 ⁻³	

Substrates

Screeds
Self-levellers
Levellers
Plasters and skimming coats
Existing tiles
Underfloor heating systems
Concrete and reinforced concrete
Gypsum
Gypsum and anhydrite
Fibre cement slabs

Uses

Interiors - exteriors
Floors - walls
Overlaying
Swimming pools and fountains
Terraces and balconies
SPA and Hammam
Indoor wet areas (bathrooms, showers)
Façades
Industrial floors
Residential, public, commercial building

Limitations

Do not add too much water when mixing: too much water may result in longer setting times and increase the risk of cracks and flaking, powdery and crumbly surfaces
Do not mix excessive quantities of product: the pot life is about 50 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 on damp surfaces or surfaces subject to rising damp
Do not apply the product in the presence of strong air currents
Do not add lime, cement or other foreign materials to the product

Product specifications

Appearance	Powder
Colour	Grigio
Responsible packaging	20 kg recyclable bag
Customs code	38245090
Shelf life	12 months in original packaging in a dry place.

Specifications for application

Mix ratio	Water = 20% (4 litres of water per 20 kg bag)
Consistency of mix	Creamy thixotropic
Mix curing time	5 minutes
pH of mix	13
Specific gravity of mix	2.10 kg/dm ³
Pot life	Approx. 50 minutes

Applicable thicknesses	From 1 to 30 mm
Application	Trowel
Application temperatures	From +5°C to +35°C
Ready for light foot traffic	3 hours
Waiting time for installation of ceramic and porcelain tiles and natural stones	3 hours
Waiting time for installation of resilient and wood flooring	12 hours
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	1.7 kg/m ² per mm of thickness

Technical specifications

Compliance	EN 13813	CT C25 F6
Flexural strength after 28 days	≥ 6.0 N/mm ²	EN 1348
Compressive strength after 28 days	≥ 25.0 N/mm ²	EN 1348
Adhesion to concrete after 28 days	≥ 1.0 N/mm ²	EN 1348

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. 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 correct use of the indicated products.

Preparing the mixture

Pour the right quantity of water, depending on the application, into a clean container and slowly add the powder, stirring with an electric drill with mixing paddle until a consistent mix is obtained without lumps.

Let the mixture rest for about 5 minutes, during which the polymeric Gel development is completed: the hydraulic binders, fillers and cellulose hydrate uniformly, air micro-bubbles incorporated during mixing are eliminated, and the polymers begin their activation process.

The pot life is about 40 minutes at a temperature of +23°C, therefore it is advisable to mix only the quantity of material that can be applied within this period of time.

Do not use quantities of mixing water greater than those indicated to avoid product shrinkage during curing and the lowering of the final mechanical properties.

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

If the product is applied with a plastering pump with vertical mixer, the quantity of mixing water must be the same as for manual preparation, and

mixing must continue until complete homogenisation before spreading the mix.

Application

Pour the mix directly onto the substrate.

For application, use a smooth steel trowel, pressing the product firmly to expel any air entrapped during mixing.

When high thicknesses are required, apply the product in several successive coats, following the above instructions, up to a maximum total thickness of 30 mm.

A rectification coat can be applied, if necessary, about 3 hours after the first coat.

For a smoother surface finish, use a sponge trowel when the product starts binding and has sufficiently set.

Ceramic and porcelain tiles and natural stones can subsequently be installed after about 3 hours.

In the case of wood or resilient floors, after 12 hours.

These waiting times are influenced by the ambient temperature and humidity.

These waiting times are influenced by the ambient temperature and humidity.

Covering installation

Coverings can be installed after at least 3 hours have passed. The installation of ceramic tiles, natural stones or mosaics will 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. To ensure the perfect adhesion of the adhesive Gel, 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. 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 or expansion, outdoors, in swimming pools or in particularly stressed areas. In accordance with Standard UNI 11493-1, the tiles must be installed with joint widths suitable for their size (at least 2 mm). For grouting in humid environments, it is recommended to use Starlike® Pro or Starlike® Easy. Respect any control or structural joints and create adequate expansion, separation and perimeter joints.

Warnings

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

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

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

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

Safety information

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

High-strength substrate rectification in thicknesses from 1 to 30 mm will be carried out with a quartz-reinforced multi-purpose, structural levelling compound, with anti-shrinkage and controlled anti-fracture expansion properties, fast-setting and self-curing with very low cement content, for levelling in swimming pools, terraces and showers before installing porcelain stoneware and natural stones, class CT C25 F6 according to EN 13813, specifically Hydro-Level 1-30 by Litokol Lab SpA.

Data sheet **n. 125**

Revision **n. 1**

Date: **12 25**

Litokol

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