HydroLevel® 1-30
Technical Specifications

A multi-purpose, quartz-reinforced structural levelling compound, with anti-shrinkage properties and controlled expansion to prevent cracking, a fast-setting, self-polymerising formula with an extremely low cement content, for levelling in swimming pools, terraces and showers prior to the installation of porcelain stoneware and natural stone

Product description

A multi-purpose, quartz-reinforced structural levelling compound, non-shrinking and with controlled expansion to prevent cracking, fast-setting, self-curing and with an extremely low cement content, for smoothing, levelling and creating gradients, even in damp, constantly wet and underwater areas such as swimming pools, terraces and showers, prior to the installation of porcelain stoneware and natural stone coverings
HydroLevel 1-30 levels and fills thicknesses from 1 to 30 mm in new or existing substrates and produces a smooth finish.
It is suitable for levelling screeds for both electric and hot-water underfloor heating systems

Classified as CT C25 F6 – EN 13813

Certifications

CT C25 F6 EN 13813
EC1 Plus Gev Emicode
A+ Indoor air emissions
EPD Environmental Product Declaration

HydroLevel® 1-30 and the environment

LCA results for Global Warming Potential – Greenhouse Gases (GWP-GHG)

Impact category	Unit	A1–A3	C1	C2	C3	C4	D
Climate change GWP-GHG	kg CO⊠ 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-levelling compounds
Levelling Compounds
Plaster and skim coats
Existing tiles
Radiant heating systems
Concrete and reinforced concrete
Plasterboard
Plaster and anhydrite
Fibre-cement sheets

Uses

Interior – exterior
Floors – walls
Overlay
Swimming pools and fountains
Terraces and balconies
SPA and Hammam
Indoor wet areas (bathrooms, showers)
Facades
Industrial flooring
Residential, public and commercial construction

Limitations

Do not use too much water when mixing: excessive amounts of water will prolong curing times and may lead to the formation of cracks and delamination, as well as powdery and inconsistent surfaces
Do not mix excessive quantities of the product: the pot life of the mixture is approximately 50 minutes at a temperature of +23°C; it is recommended to mix only the quantity of product that can be used within this time period
Do not apply the product to damp surfaces or those prone to rising damp
Do not apply the product in the presence of strong draughts
Do not add lime, cement or other foreign materials to the product

Product specifications

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

Application Specifications

Mixing ratio	Water = 20% (4 litres of water per 20 kg bag)
Consistency of the mix	Thixotropic creamy
Dough proving time	5 minutes
pH of the mixture	13
Specific gravity of the mixture	2.10 kg/dm^3
Pot life	About 50 minutes
Applicable thicknesses	From 1 to 30 mm

Application	Trowel
Permissible application temperatures	From +5°C to +35°C
Ready for foot traffic	3 hours
Drying time before laying ceramic tiles and natural stone	3 hours
Waiting time before laying resilient flooring and parquet	12 hours
Operating temperature	From -30°C to +90°C
Cleaning of equipment	With water when the product is fresh. Mechanically once the product has hardened.
Coverage	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
Bond to concrete after 28 days	≥ 1.0 N/mm^2	EN 1348

Preparation of substrates

In accordance with standard UNI 11493-1, substrates must be mechanically sound and free from crumbly parts, grease, oil, paint, wax and rising damp. Cement-based plasters must be allowed to cure for at least one week per centimetre of thickness. Cement-based screeds must have a total curing time of at least 28 days or be laid using the innovative X-Floor and X-Floor Pro crack-resistant screeds. Dusty, porous and absorbent substrates must be treated with X-Prime®, an innovative fixative and consolidant. Smooth, compact substrates, such as trowelled concrete, old ceramic tiles or terrazzo 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 the case of anhydrite screeds, ensure that a suitable vapour barrier is in place to prevent any rising damp. Check using a carbide hygrometer that the residual moisture content is less than 0.5% and 0.3% for underfloor heating screeds. The surface must be sanded and primed with X-Prime®. Any cracks or fissures must be sealed with CrackRepair. In all cases, it is essential to consult the relevant technical data sheets to ensure the correct use of the products indicated.

Preparation of the mix

Pour the correct amount of water, depending on the application, into a clean container and slowly add the powder, mixing with an electric drill fitted with a mixing paddle, until a homogeneous, lump-free mixture is obtained.
Leave the mixture to rest for about 5 minutes, during which time the polymeric gel develops fully: the hydraulic binders, fillers and cellulose hydrate uniformly, the micro-air bubbles incorporated during mixing are eliminated and the polymers begin the activation process.
The pot life of the mixture is approximately 40 minutes at a temperature of +23°C; therefore, it is recommended that you mix only the amount of material that can be applied within this time.
Do not use more mixing water than specified in order to prevent the product from shrinking during curing and to avoid a reduction in its final mechanical properties.
Do not add any more water to the mix once setting has begun.
If the product is applied using a plastering pump fitted with a vertical-axis mixer, the amount of mixing water must be the same as for manual preparation, and the mixture must be mixed until completely homogenised

before application.

Application

The mixture is poured directly onto the substrate.
When applying the product, use a smooth steel trowel, pressing firmly to expel any air trapped during mixing.
If thick layers are required, apply several successive coats following the instructions above, up to a maximum total thickness of 30 mm.
A levelling coat may be applied approximately 3 hours after the first coat has been applied.
For a smoother surface finish, use a sponge trowel once the product has started to set and is sufficiently hardened.
The subsequent laying of ceramic tiles and natural stone can be carried out after approximately 3 hours.
For parquet or resilient flooring, wait 12 hours.
These waiting times are influenced by ambient temperature and humidity.
These waiting times are influenced by ambient temperature and humidity.

Flooring installation

Wall coverings may be fitted at least 3 hours after the last coat. The installation of ceramic tiles, natural stone or mosaics shall be carried out using high-performance gels based on Litokol technology, which guarantee complete force transfer, consistent system performance and total safety. To ensure perfect adhesion of the adhesive gel, apply a thin, even coat of the mixture using the smooth side of the trowel and, immediately afterwards, apply the desired thickness using the notched side. In accordance with the UNI 11493-1 standard, use the double-coating technique, applying the gel to the back of the tiles as well to ensure they are fully saturated during installation in areas where the substrate may be subject to movement or expansion, outdoors, in swimming pools or in areas subject to particularly high stress. In accordance with the UNI 11493-1 standard, tiles must be laid with joints of a width appropriate to their size (minimum 2 mm). For grouting in damp areas, we recommend using Starlike® Pro or Starlike® Easy. Take account of any partition or structural joints and provide suitable expansion, partition and perimeter joints.

Warnings

Apply the product at temperatures between +5°C and +35°C
In hot weather, store the product packs in a cool place away from direct sunlight before use
Due to its high adhesion, it is recommended to wash tools and remove any product residue from surfaces with water before the product hardens. Once fully hardened, the product can only be removed mechanically.
Do not use for applications not listed on this technical data sheet
For further information, please contact Litokol's Technical Customer Service on +39-0522-622811 or via customercare@litokol.com

Safety Information

For the safe use of our products, please refer to the latest version of the Safety Data Sheet, available at www.litokol.com
PRODUCT FOR PROFESSIONAL USE

Legal notices

The information and specifications set out in this technical data sheet are based on our best experience. However, as we are unable to directly influence site conditions or the execution of the works, these are general guidelines which do not in any way bind our Company. We therefore recommend carrying out a preliminary test to verify the product's suitability for the intended use; in any case, anyone intending to use it is required to determine whether or not it is suitable for the intended use and, in any event, assumes all liability that may arise from its use. Always refer to the latest updated version of the Technical Data Sheet, available on the website www.litokol.com

Specification item

High-strength levelling of the substrate, in thicknesses ranging from 1 to 30 mm, shall be carried out using a quartz-reinforced, multi-purpose structural levelling compound, which is shrinkage-resistant and features controlled expansion to prevent cracking, a fast-setting, self-polymerising compound with an extremely low cement content, for levelling in swimming pools, terraces and showers prior to the installation of porcelain stoneware and natural stone, class CT C25 F6 in accordance with EN 13813, type HydroLevel 1-30 by Litokol Lab SpA.

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