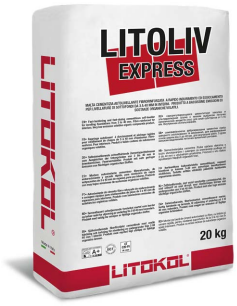
Substrate preparation

Litoliv Express

QUICK-SETTING AND DRYING CEMENTITIOUS SELF-LEVELER FOR LEVELING OF SUBSTRATES WITH THICKNESS BETWEEN 3 AND 40 mm (0.12 and 1.6in). SUITABLE FOR UNDERFLOOR HEATING. FOR INTERIORS. FIBER-REINFORCED. PRODUCT WITH VERY LOW VOLATILE ORGANIC COMPOUND EMISSION RATE.



CT C20-F5 EN 13813 | CE EN 13813 | ÉMISSIONS DANS L'AIR INTÉRIEUR A+ | GEV-EMICODE EC1 PLUS very low emission | SPEED | 3-40 mm

DESCRIPTION

Ready-mixed cementitious powder self-leveler made from special hydraulic binders, inert fillers of selected granulometry, organic additives and synthetic fibers.
The product, once mixed with water, is characterized by an excellent self-leveling capacity and ease-of-application by hand or screw-pump plastering machine with variable thickness between 3 and 40 mm (0.12 and 1.6in).
Litoliv Express develops high mechanical flexural and compressive strength just 4 hours after application and thanks to its particularly fast drying time, allows the subsequent installation of ceramic and porcelain tiles, natural stones, textiles and resilient flooring in a very short time.

ADVANTAGES / FEATURES

- Product with very low volatile organic compound (VOC) emission rate. Complies with class EC1^{PLUS} according to the EMICODE protocol and class A+ (Émission dans l'air intérieur - French Regulations)
- Excellent adhesion on traditional cementitious substrates
- Quick setting and drying
- Development of screeds with incorporated heating coils without the need for fluidifying additives
- Excellent self-leveling effect
- Suitable for substrate leveling in electric and hot water underfloor heating
- No shrinkage during setting, which prevents cracking phenomena
- Fiber-reinforced product with improved resistance to expansion stresses in the presence of underfloor heating

PACKAGING

20 kg (44lb) bags - 1,200 kg (2,645.5lb) standard pallet

INTENDED USE

Leveling of substrates in indoor residential and public/commercial areas not subject to heavy traffic, in a variable thickness between 3 and 40 mm (0.12 and 1.6in) in a single coat.
Typical applications include:

- Leveling of cement screeds in indoor areas, also developed with Litocem or Litocem Pronto
- Leveling on heating screeds
- Leveling on Sulfate/anhydrite-based screeds
- Leveling on existing floors made with ceramics, natural stone and agglomerate coverings
- Leveling of concrete slabs

PREPARATION OF SUBSTRATES

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

- Excessively porous and absorbent or powdery substrates must be treated with the consolidating primer Primer C. The application of Primer C on absorbent surfaces improves the fluid application of the mix while also improving the level of adhesion
- Smooth and compact substrates such as smoothed concrete, existing ceramic or agglomerate coverings, must be treated with the adhesion promoter primer Prepara Fondo EVO after being suitably degreased with specific detergents such as Litoscrub EVO
- In the case of anhydrite screeds, check for the presence of a suitable vapor 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 and treated with Primer C
- Any cracks must be repaired with Multifondo EVO, sprinkling the fresh surface with sand or dried quartz with granulometry 0.4-1 mm (0.016-0.039in)

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

Expansion joints
Check that the perimeter, expansion, divider and structural elastic joints have been correctly designed and prepared. Divider joints are normally required for sections equal to 50 m^2 (54.7yd^2) or 25/30 m^2 (27.3/32.8yd^2) in the case of underfloor heating.
In areas with surfaces less than 50 m^2 (55yd^2) expansion joints must nonetheless be inserted along each of the door thresholds.

MIX RATIO

20 kg (44lb) (1 bag) – Water 4.4 - 4.8 l (1.16 - 1.27US gal lqd) (22-24%)

PREPARING THE MIX

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 mix rest for about 3 minutes and then briefly mix again for a few seconds.
The pot life is about 30 minutes at a temperature of +23°C (73.4°F), 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 homogenization before spreading the mix.

APPLICATION

Pour the mix directly onto the substrate.
Spread the product using a smooth steel trowel or rubber floor squeegee to obtain the required thickness.
The product can also be applied using a plaster pump.
Ceramic and porcelain tiles, wood, resilient or textile flooring can then be installed after about 24 hours depending on the applied thickness and ambient temperature.
When installing wood flooring, apply a minimum thickness of at least 3 mm (0.12in) and check the humidity using a carbide method hygrometer before bonding (maximum humidity = 2%).

WARNINGS

- Spread the product at temperatures between +5°C (50 °F) and +35°C (86 °F) inclusive
- Do not add lime, cement or other foreign materials to the product
- Do not use the product on damp surfaces or surfaces subject to rising damp
- The pot life is about 30 minutes at a temperature of +23°C (73.4°F). Be sure to mix only the quantity of product that can actually be used within this period of time
- Use the correct amount of water in the mix. Too much water may result in longer setting times and increase the risk of cracks and flaking, powdery and crumbly surfaces
- Do not use the product in the presence of strong air currents
- Do not use the product for applications not stated in this technical sheet
- 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

#The certified high-resistance rectification of the substrate with thickness from 3 to 40 mm (0.12 to 1.6 in) will be carried out with a mineral fiber-reinforced quick-setting self-leveler compliant with standard EN 13813, class CT-C20-F5, such as Litoliv Express by Litokol S.p.A., suitable for the subsequent installation of ceramics and wood flooring after 24 hours from its application at +23 °C (73.4 °F) 50% R.H. Spread it with a smooth trowel or leveling bar onto the previously prepared, clean and dimensionally stable substrate. Average yield ≈ 1.6 kg/m^2 (3.7lb/yd^2) per mm (inch) of thickness developed.

IDENTIFICATION DATA

Appearance	Powder
Color	Gray
Customs code	38245090
Shelf life	12 months in original packaging in a dry place.

APPLICATION DATA

Mix ratio	Water = 24% (4.8 liters (1.3US gal lqd) of water per 20 kg (44lb) bag)
Consistency of mix	Self-leveling fluid
Mix curing time	3 minutes
pH of mix	13
Specific gravity of mix	1.60 kg/dm^3 (3.53lb/in^3)
Pot life	Approx. 30 minutes
Applicable thicknesses	From 3 to 40 mm (From 0.12 to 1.6in)
Application	Trowel or rubber floor squeegee
Application temperatures	From +5°C to +35°C (+41°F to +104°F)
Set to light foot traffic	3 hours
Waiting time for installation of covering	24 hours
Temperature of use	From -20°C to +80°C (-4°F to +176°F)
How to clean equipment	With water when product is fresh. Mechanically when product has set.
Consumption	1.6 kg/m^2 (3.53lb/yd^2) per mm (inch) of thickness

PERFORMANCE

Compliance	EN 13813	CT - C20 - F5
Flexural strength after 28 days	≥ 5.0 N/mm^2 (0.12lbf/in^2)	EN 1348
Compressive strength after 28 days	≥ 20.0 N/mm^2 (4.50lbf/in^2)	EN 1348
Adhesion to concrete after 28 days	≥ 1.0 N/mm^2 (0.22lbf/in^2)	EN 1348

NOTES

Data detection at temperature +20 °C (+68°F), R.H. 65% and with no wind. May vary depending on the specific conditions of the installation site.

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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.

Litokol S.p.A.
Via G. Falcone 13/1
42048 Rubiera (RE) Italy
Tel. +39 0522 622811
Fax +39 0522 620150
info@litokol.it
www.litokol.it