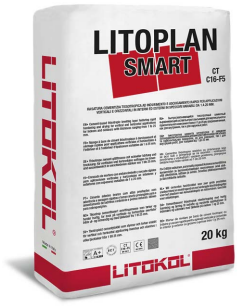
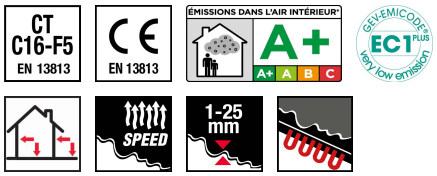
Litoplan Smart

QUICK-SETTING AND FAST-DRYING THIXOTROPIC CEMENTITIOUS LEVELING LAYER FOR SUBSTRATES WITH THICKNESS BETWEEN 1/16" AND 1" (1 and 25 mm). SUITABLE FOR UNDERFLOOR HEATING. FOR INTERIORS AND EXTERIORS. ZHERORISK TECHNOLOGY OFFERS VERY LOW RATE OF VOLATILE ORGANIC COMPOUND EMISSION.





DESCRIPTION

Ready-mixed, gray cementitious skim coat in powder form, made from quick-setting and fast drying hydraulic binders, siliceous aggregates with selected granulometry, organic additives.
Mixed with 20% water (4.2 qts. (4 l) per 44lb (20 kg) bag), it gives a thixotropic mix that is easy to apply on vertical substrates with no dripping.
If the mixing water is increased to 24% (5.1 qts. (4.8 l) per 44lb (20 kg) bag), a plastic mortar is obtained with the right consistency for floor applications.

ADVANTAGES / FEATURES

- Product exhibits very low volatile organic compound emissions (VOC). Complies with the most stringent Global Air Quality Regulations.
- Extended pot life of mix (about 60 minutes), which facilitates application on large surfaces
- Quick setting and drying
- Development of high mechanical flexural and compressive strength just 4 hours after application
- Excellent adhesion on traditional cementitious substrates
- Suitable for interior and exterior applications.
- No shrinkage during setting, which prevents cracking phenomena
- Possibility to obtain a smooth surface finish using a sponge trowel slightly dampened with water. The operation must be carried out when the applied product starts to set and is sufficiently hard

PACKAGING

44lb (20 kg) bags - 2,645.5lb (1,200 kg) standard pallet of 60 bags

SUITABLE APPLICATIONS

Suitable for leveling and evening interior and exterior vertical and horizontal surfaces with variable thickness between 1/16" and 1" (1 and 25 mm) in a single coat.
Typical applications include:

- Leveling of interior and exterior cement screeds, also created with Litocem or Litocem Pronto
- Leveling of cement screeds on balconies and terraces to create slopes
- Evening of walls and floors of concrete structures in tanks and swimming pools
- Leveling of heating screeds
- Leveling of concrete slabs or walls
- Leveling of cement plasters
- Leveling of surfaces with old binder residue for ceramics
- Leveling of old tiled, agglomerate or natural stone surfaces
- Repair or leveling of steps, corners of pillars, balcony fronts, sagging or holes in flooring

PREPARATION OF SUBSTRATES

The substrates must be clean, solid, compact, crack-free, properly cured and dry.
Use of primer:

- Excessively porous and absorbent or powdery substrates must be treated with the consolidating primer Primer C
- 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 40-60 size granules (0.4-1 mm)
In any case, the respective technical data sheets must be consulted for correct use of the indicated products.

MIX RATIO

Thixotropic mix:
44lb (20 kg) (1 bag) - Water (20%) 4.2 qts. (4.0 l)
Fluid mix:
44lb (20 kg) (1 bag) - Water (24%) 5.0 qts. (4.8 l)

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 5 minutes and then briefly mix again for a few seconds.
The pot life is about 60 minutes at a temperature of 73.4°F (+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.

APPLICATION

The mix is applied directly on the substrate in the desired thickness using a metal trowel.
The mix must be pressed onto the substrate to favor adhesion.
For high thickness applications on large surfaces, it is recommended to create level bands with Litoplan Smart and then perform leveling with the metal ruler rested against the bands.
For a smoother surface finish, use a sponge trowel when the product starts binding and has sufficiently set.
A rectification coat can be applied, if necessary, about 3 hours after the first coat.
Ceramic and porcelain tiles and natural stones can subsequently be installed after about 4-6 hours. In the case of wood or resilient floors, after 24 hours.
These waiting times are influenced by the ambient temperature and humidity.
If installing wood flooring, the minimum thickness of Litoplan Smart must not be less than 3 mm (0.12in) and the residual humidity must be maximum 2%, measured with a carbide method hygrometer.

LIMITATIONS

- Spread the product at temperatures between 40°F and 95°F
- Do not add lime, cement or other foreign materials to the product
- D not use the product on damp surfaces or surfaces subject to rising damp
- The pot life is about 60 minutes at a temperature of 73.4°F (+23°C). 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
- In the case of wood floor installations, apply a thickness of at least 1/8" (3 mm)
- In the case of substrates in wood or in any case subject to flexing and vibrations, mix Litoplan Smart with the elasticizing latex Latexkol instead of water until the desired consistency is obtained
- Protect against direct sunlight or strong air currents for the first 12 hours after application
- In warm climates, keep the packaged product in a cool and dry place away from the sun before use
- Do not use on gypsum, gypsum-based plasters and walls in autoclaved aerated concrete blocks
- 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 1/16" to 1" (1 to 25 mm) will be carried out with a mineral quick-setting skim coat compliant with standard EN 13813, class CT-C16-F5, such as Litoplan Smart by Litokol S.p.A., suitable for the subsequent installation of ceramics after 4-6 hours and of 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/m2 (3.53 lb/yd2) 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 = 20-24% (4.2 - 5.1 qts. (4.0 - 4.8 l) of water per 44lb (20 kg) bag)
Consistency of mix	Creamy thixotropic mortar
Mix curing time	5 minutes
Density of mix	3.53lb/in^3 (1.60 kg/dm^3)
Pot life	Approx. 60 minutes
Applicable thicknesses	From 1/32in to 1in (1 to 25 mm)
Application	Smooth steel trowel
Acceptable application temperatures	From +41°F to +104°F (+5°C to +35°C)
Set to light foot traffic	3 hours
Waiting time for installation of ceramic and porcelain tiles and natural stones	4-6 hours
Waiting time for installation of resilient and wood flooring	24 hours
Serviceability Temperatures	From -22°F to +194°F (-30°C to +90°C)
How to clean equipment	With water when product is fresh. Mechanically when product has set.
Coverage	3.53lb/yd^2 (1.6 kg/m^2) per mm of thickness

PERFORMANCE

Compliance	EN 13813	CT - C16 - F5
Flexural strength after 28 days	≥ 725 psi (5.0 N/mm^2)	EN 1348
Compressive strength after 28 days	≥ 2,320 psi (16.0 N/mm^2)	EN 1348
Adhesion to concrete after 28 days	≥ 145 psi (1.0 N/mm^2)	EN 1348

NOTES

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

Form **n. 108**
Revision **n. 4**
Date: **January 2021**

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.

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