LITOCEM PRONTO

PREMIXED READY-FOR-USE NORMAL-SETTING FAST-DRYING CONTROLLED SHRINKAGE MORTARFOR INDOOR AND OUTDOOR SLABS

CT C30-F6 Conforme alla norma EN 13813

GEV-EMICODE EC1 PLUS very low emission

ÉMISSIONS DANS L'AIR INTÉRIEUR A+ A+ A B C

CT C30-F6 EN 13813

SPEED

DESCRIPTION

Premixed cement mortar consisting of special hydraulic binders, organic additives and frost-resistant aggregates of selected and controlled particle size. The product is characterised by normal setting times, fast drying and controlled shrinkage.

ADVANTAGES

Product with ultra-low emission of volatile organic compounds EC1PLUS GEV-EMICODE - Class A + in compliance with Émission dans l'air intérieur-French Regulations.

Ready-for-use product that only requires the addition of water, thereby avoiding binder dosing errors and aggregate selection.

Suitable for screeds in town centres or rough sites where handling bulk aggregates is difficult.

Development of short-term high mechanical resistance that allows foot traffic after just 12 hours.

Accelerated installation times thanks to the drying speed. Laying of tiles after 24 hours; natural stone and resin agglomerates after 2 days; parquet and resilient material after 4 days.

Preparing screeds incorporating heating coils with no fluidifying additives being required.

EN 13813 CLASSIFICATION

Litocem Pronto allows you to obtain cement screeds of CT-C30-F6 class. The compliance of the product with the EN 13813 harmonised standard is reported in the Declaration of Performance CPR-IT110 according to the European Regulation for construction products (CPR - Construction Products Regulation N: 305/2011/EU) and tested according to system 4 of the certification.

PACKAGING

25 kg sacks Standard 1,200 kg pallet

INTENDED USE

Litocem Pronto is used to prepare indoor and outdoor cement screeds.

Adhering screeds (thickness from 20 to 40 mm).

In the case of screeds with reduced thickness, it is essential to prepare them in adherence to the existing support, usually made of concrete slabs or old ceramic tiles or natural stone. In this case, after performing adequate substrate preparation (cleaning, degreasing, etc.), immediately before pouring the mixture, apply a uniform layer of bonding slurry to the substrate with a flat brush, big brush or broom, consisting of Portland Cement 32.5 or 42.5, water and Idrokol X20 in the following proportion:

Portland Cement 32.5/42.5: 3 parts by weight
Water: 1 part by weight
Idrokol X20: 1 part by weight

Then apply the mixture of Litocem Pronto, fresh-on-fresh, to the bonding slurry. Be particularly careful in hot climates or in the presence of wind that the adhesive slurry would have not formed a superficial film before casting the screed, which would compromise adhesion.

Unbonded screeds with suitable vapour barrier interposition (thickness from 40 to 80 mm).

The mixture of Litocem Pronto is applied on a separating layer consisting of sheets of polyethylene or similar, overlapping at least 20 cm (sealed with tape) and going back along the perimeter and at any elevation from the surface along the entire thickness of the screed acting as a sliding layer and vapour barrier against any rising damp.

Floating screeds on a layer of thermal or acoustic insulation.

In this case, thicknesses and reinforcement are to be calculated according to the degree of compressibility of the underlying materials.

Screeds incorporating heating-cooling coils.

These are floating screeds in which the heating-cooling coils are incorporated in their thickness. The screed thickness above the system pipes should be ≥ 30 mm. The start-up cycle should be run in the system before installing the tiles, natural stone, parquet, etc., in accordance with UNI EN 1264-4.

TILING DESIGN

The durability of a ceramic tile can only be guaranteed by means of a good design of the same. We recommend that you consult with the national legislation in your country such as for example UNI 11493:2013 for Italy which provides the necessary guidelines for choosing materials, correct design, use and installation, in order to ensure the achievement of the required levels of quality, presentation and durability. Useful information can be obtained by consulting the Code of Good Practice for indoor supporting screeds edited by Conpaviper.

MIXING PROPORTION
Litocem Pronto 25 kg. (1 bag) + 1.6 litres of water (6.4%)

PRELIMINARY OPERATIONS
Place the strips of compressible Litoside material acting as a perimeter joint along the entire perimeter and in line with any surface elevations (columns, beams, etc.). Alternatively, compressible material, such as expanded polystyrene, cork, etc. can also be used with a thickness of 5 mm. In the case of floating or unbonded screeds, set up a suitable vapour barrier (polyethylene or similar) against rising damp, overlapping the sheets by at least 20 cm, sealing them with tape and making them reach all the perimeter and the entire screed thickness on any columns. Crossing pipes or ducts below the thickness of the screed should be avoided as sudden changes in thickness can cause cracks and sagging in the screed. If you cannot avoid it, it is recommended to fasten the pipes or ducts securely and insert reinforcement consisting of lightweight hexagonal mesh in the screed area affected by the crossing.

PREPARING THE MIXTURE
Litocem Pronto can be mixed with:
- Cement mixer.
- Automatic pressure pump.
- Planetary mixer.
- Screw mixer.

Pour 1.6 litres of clean water for every bag of Litocem Pronto and mix for at least 5 minutes. Do not vary the amount of water indicated so as not to compromise the final performance of the screed.

APPLICATION
With the mixture having the consistency of "wet earth" being obtained, the levelling strips must be set up to obtain a flat and level surface. The levelling strips should be set up together with the screed. The mixture should be compacted in order to reduce cavities or voids, equalised using a metal ruler rested against the levelling strips and and levelled in order to obtain a smooth, closed surface with no water on the surface. The levelling procedure can be performed manually with a trowel or mechanically with a rotating disc. When the cast is interrupted due to an interruption in the works, lengths of iron with a diameter of 5 mm and a length of about 30 cm, spaced 20-30 cm away from each other should be placed in the thickness of the fresh screed. When casting the concrete, apply the bonding slurry with a brush, consisting of 32.5 or 42.5 cement, water and Idrokol X20, as a link between the two casts. Even in this case, verify that the slurry has not formed a superficial layer before casting the new mixture. Alternatively, interrupt the cast at a given threshold, making a construction joint that affects the entire thickness of the screed.

JOINTS
The sizing of the joints shall be determined during the design phase, considering the following factors:
- Type of screed.
- Architectural situation.
- Presence of discontinuity parts.
- Type and size of the cladding to the installed.
- Environmental conditions.
- Intended use of the floor.

The fraction joints are designed to enhance the normal contraction and expansion of hardened screed and are generally set up in line with:
- Thresholds.
- Floor areas greater than 40 m^2.
- Environments with the longest side exceeding 8 metres.
- Presence of discontinuity parts.
- Sudden change in the size of the floor.

UNI 11493 suggests the construction of fraction joints ranging from 5x5 m to 6x4 m in indoor environments and 3x3 m to 4x2.5 m in outdoor environments. The preparation of these joints includes the mechanical cut which is to be carried out as soon as the screed is ready for incision (not more than 24 hours) and must cover at least one third of the thickness, being careful not to cut through the reinforcement, if present.
Structural joints must obviously comply while casting the screed.

HEATED FLOORING
After at least 4 days after laying the Litocem Pronto based screed, you can start-up the heating system with a water supply temperature ranging between + 20°C and + 25°C, keeping it constant for at least 3 days. Then set the maximum project temperature and maintain it for another 4 days. At the end of this cycle, bring the screed to room temperature and apply the cladding (see EN 1264-4).

HUMIDITY
The measurement of residual humidity of the Litocem Pronto based screeds should only be performed with a carbide hygrometer as prescribed by UNI 10329, excluding conductivity hygrometers which could give false values. The table below indicates the residual humidity acceptance limits according to the type of cladding to be applied.

Ceramic tiles **Natural stone not affected by the humidity** **Resin agglomerates**	3%
Parquet **PVC** **Rubber** **Linoleum**	2%
Resinous flooring	Follow the manufacturer's instructions

COMPATIBLE ADHESIVES
- C1-C2-C2F-C2F-C2FS1-C2FS2-C2S1-C2S2 class cementitious adhesives according to EN 12004 and EN 12002 mixed with water or latexes in aqueous dispersion.
- Ready-for-use D1-D2 class dispersion adhesives according to EN 12004.
- Two-component R1-R2 class reactive adhesives according to EN 12004.
- Two-component or vinyl adhesive for parquet.
- Organic or two-component adhesives for PVC, rubber and linoleum.
- Solvent-based adhesives for carpets.

The most suitable adhesive must be selected according to the type and format of the cladding that is to be applied, the expected working conditions and the intended use of the floor.

WARNINGS

- Do not add lime, cement or other foreign materials to the product.
- Apply the product at a temperature range between +5°C and +35°C.
- Comply with the recommended mixing ratio with water.
- Do not apply the product on surfaces subject to rising humidity. In these cases a vapour barrier must be interposed.
- Do not add water when the product has started to bind.
- Do not wet the surface of the Litocem Pronto based screed.
- In the presence of warm climates store the packages in a cool place protected from the sun.
- Do not use the product for applications not stated on this technical sheet
- If in doubt, contact the Litokol Technical Assistance

INFORMATION ON SAFETY

Refer to the product's safety sheets available upon request.

PRODUCT FOR PROFESSIONAL USE

SPECIFICATIONS

The screed will be applied with premixed cement mortar, according to class CT-C30-F6, in accordance with UNI EN 13813 Litocem Pronto type produced by Litokol S.p.A., suitable for laying ceramic tiles after 24 hours and parquet after 4 days.

IDENTIFICATION DATA

Appearance	Powder
Colour	Grey
Emission of volatile organic compounds	EC1 Plus (GEV Emicode)– very low emission of volatile organic compounds (VOC) Class A + (Émission dans l'air intérieur-French Regulations).
Classification according to EN 13813	CT-C30-F6
Custom classification	3824 5090
Preservation time	12 months inside the original packaging, in a dry place

APPLICATION DATA

Mixing proportion	1.6 litres of water per 25 kg bag (6.4%)
Mixing time	5 - 10 minutes
Consistency of the mix	Damp earth
Apparent volumetric mass of the mixture (kg/m^3)	2,100
Mixture life	60 minutes
Application temperatures allowed	from +5°C to +35°C
Walkable after	After 12 hours
Applicable thickness	Adhering screeds: 20 to 40 mm Floating or unbonded screeds: 40 to 80 mm Maximum thickness: ≤ 80 mm
Cladding applications	Tiles: 24 hours Natural stone and resin agglomerates: 2 days Parquet and resilient material: 4 days
Cleaning	The equipment must be cleaned from product residue with water before the product hardens.
Adhesive slurry consumption	0.50 - 0.8 kg/m^2 depending on the substrate surface
Litocem Pronto consumption	18 - 20 kg/m^2 per cm of thickness depending on the degree of compaction

PERFORMANCE

		Compression (N/mm²)	Bending (N/mm²)	Residual humidity (%)
Compressive strength, bending resistance and residual humidity	**After 1 day**	> 10	>3	< 3
	After 4 days	-	-	< 2
	After 7 days	> 20	> 4	-
	After 28 days	> 30	> 6	-

The mechanical resistance to bending and compression are determined according to the test method defined by EN 13892-1 that involves the maximum compaction of the mortar. The values refer to the tests completed at a temperature range between +20°C±2°C and a relative humidity of 65±5% with no ventilation. Particular site conditions may vary these values.

Resistance to moisture	Excellent
Resistance to oils and solvents	Excellent
Resistance to acids	Poor
Temperature of use	From -30°C to +90°C

Sheet No. 110

Revision No. 4

Date: January 2020

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