

## LE 21

### Levelling material



Stopper repair and levelling material for walls and floors, for layers of 1-15 mm.

DECLARATION: EN 13813 CT-C20-F5-B0,5

Cement screed material (CT) according to EN 13813, intended for the laying of floor covering.

#### APPLICATION:

This product is intended for the levelling of floors and walls before the laying of ceramic wall and floor tiles, or self-levelling stoppers. It is intended for manual processing.

This material can be applied on mineral bases – concrete floors, vertical concrete structures, masonry, cement plasters, etc.

It is applied in a thickness of 1-15 mm, and only in one layer. If applied in integrated areas on floors, it is applied in the layer thickness of 3-15 mm.

For heated floors and surfaces, the addition of **EM 10** treating emulsion is required (see the Technical Data Sheet).

This material is not intended as a final end-use layer.

#### COMPOSITION:

Aggregates, hydraulic binders, and additives improving processing and end-use properties of the stopper.

#### TECHNICAL PARAMETERS:

MANDATORY			
Compression strength (class C20)	min. 20.0 MPa	Reaction to fire	Class A1 <sub>fl</sub>
Tensile bending strength (class F5)	min. 5.0 MPa	Volume weight of hardened mortar	1700-1900 kg/m <sup>3</sup>
Binding force (class B0.5)	min. 0.5 MPa	Coefficient of heat conductivity $\lambda$	min. 1.05 W/m.K *)
Release of dangerous substances	CT		
*) tabular value			

INFORMATIVE		
Grain size		0-0.4 mm
Amount of mixing water:	per 1 kg of dry mixture	approx. 0.25 l/kg
	per 1 bag (25 kg)	approx. 6.3 l
Consistency (simple flowing without vibration)		(190 ± 10) mm
Spreading rate		approx. 1550 kg/m <sup>3</sup>
Pot life (at 5-30°C)		approx. 60 min
Average thickness of layer (design thickness)		4 mm
Usage:	unit – at layer of 10 mm	approx. 15.5 kg/m <sup>2</sup>
	at average layer of 4 mm	approx. 6.2 kg/m <sup>2</sup>
Surfaces loaded by walking people (final walking surface) – waiting time		after 24 hours
Full load-bearing capacity		after 72 hours
Durability – number of cycles (testing of frost resistance of mortar according to ČSN 72 2452)		min. 25

NOTE: The technical parameters are determined under standard conditions (23 ± 2)°C and (50 ± 5)% of relative air humidity.

### TECHNICKÝ LIST /

#### BASE PREPARATION:

The base must be dry, cohesive, and free dust or greasy impurities. Gross impurities and crusts of cement milk should be removed by grinding, and cleaned with a vacuum cleaner. The cleaned and repaired base should be provided with penetration – PE 201 for walls, and PE 202 or CP 203 for floors (see the following Table).

Base type	Penetration type – dilution – number of coatings	Usage of concentrated penetration	
Highly absorbing (lightweight concrete)	PE 202 : H <sub>2</sub> O 1st coating 1 : 5; 2nd and 3rd coating 1 : 3	PE 202 :	0.35 l/m <sup>2</sup>
Medium absorbing (normally polished concrete)	PE 202 : H <sub>2</sub> O 1st coating 1 : 5; 2nd coating 1 : 3	PE 202 :	0.25 l/m <sup>2</sup>
Low absorbing (mechanically polished concrete)	PE 202 : H <sub>2</sub> O one coating 1 : 3	PE 202 :	0.15 l/m <sup>2</sup>
Non-absorbing (ceramics, stone, hardened polymers)	CP 203 one coating	CP 203:	0.25 kg/m <sup>2</sup>

The penetration should be applied uniformly and directly on the base, using a brush, or roller. The subsequent coating should always be applied when the previous coating is dry. Under normal conditions, the drying time of coating is 60-120 minutes. CP 203 will dry after approx. 6 hours. (lower temperatures and higher relative humidity prolong the time of drying up to 48 hours). If the levelling material is applied in several layers, the bottom layer is penetrated once, using PE 202, diluted with water in a ratio of 1: 3.

#### PROCESSING:

Prepare the stopper in a stirring vessel to form the application consistency, by gradual adding the dry mixture into a prescribed amount of water, while stirring with a propeller mixer. Stir the product for approx. 2 minutes to form a homogeneous mass. After mixing, apply the mass on the base, and level the surface to the desired plane using a lath. The consistency of the processed mixture is selected according to the structure (wall or floor), and the thickness of the layer to be levelled. The air and base temperature during application and maturation must be between + 5°C and + 30°C. A freshly applied stopper should be protected at least for 24 hours to avoid quick drying or heat shocks (draft, direct sunlight, radiant heat from heaters, etc.).

#### Loading, drying:

The surface is intended as a final walking surface after approx. 24hours after application, and tiles may be laid after 48 hours .

#### CAUTION:

- The general rules specified in ČSN 74 4505 Floors - Common Regulations should be followed when designing, applying, and treating screeds.
- The mixture can be mixed only with drinking water, or water conforming to standard EN 1008.
- It is inadmissible to add additional binders, aggregates, and other inadvisable additives. Sifting of the mixture is inadmissible too.
- Performing the penetration of bases according to the Table must be followed!
- The mixture can be processed only under material, base and air temperatures ranging from +5°C to +30°C! The work cannot be done if frost is expected.
- The fresh material should be protected from direct sunlight and draft.
- Unused residues should be mixed with water and allow them to harden - disposed in a controlled landfill, contaminated containers should be disposed as of hazardous wastes (see the Safety Data Sheet).
- Only completely emptied and clean packaging may be handed over to recycling.

#### FIRST AID, SAFETY AND HYGIENE REGULATIONS:

See the product Safety Data Sheet.

#### STORAGE:

The product should be stored in original containers – protected from damage, action of water, and high relative air humidity. If the storage conditions are met, the shelf life will be 6 months. The expiration date is specified on the packaging.

#### SHIPPING:

The dry mixture is supplied in 25 kg paper bags placed on pallets wrapped in foils.

#### QUALITY:

- The product quality is regularly checked in the manufacturer's laboratories.
- The production control system is used in manufacture, and a certified quality management system, according to ISO 9001, is applied.
- Continuous surveillance and proving the conformity of products (if necessary) is ensured by TZUS Prague, OS 1020.

#### DISTRIBUTOR:

LASSELSBERGER, s.r.o., Adelova 2549/1, 320 00 Pilsen – Jižní Předměstí

#### VALIDITY:

Since 1 May 2015

We reserve the right to make any changes that are the result of technical progress. This issue cancels and supersedes all previous issues.

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