

LE 20

Levelling material



Self-levelling material for layers of 3-10 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:

Self-levelling screed for manual and mechanical processing.

This product is intended for the levelling of bases before the laying of ceramic floor tiles and other floor covering materials, polyurethane stoppers, and coatings.

This product can be applied on concrete or concrete pavement.

It is to be applied in a thickness of 3–10 mm, only in one layer (local surface irregularities can be covered with a layer of 3-15 mm). The optimal design thickness is approx. 4 mm. For higher thickness, another product should be chosen (such as **OV 30**).

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

COMPOSITION:

Aggregates, hydraulic binders, redispersible polymer, and other 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 _{fl}
Tensile bending strength (class F5)	min. 5.0 MPa	Volume weight of hardened mortar	1850-2050 kg/m ³
Binding force (class B0.5)	min. 0.5 MPa	Coefficient of heat conductivity λ	min. 1.2 W/m.K *)
Release of dangerous substances	CT		
*) tabular value			

INFORMATIVE		
Grain size		0-0.7 mm
Amount of mixing water:	per 1 kg of dry mixture	0.20-0.22 l/kg
	per 1 bag (25 kg)	5-5.5 l
Consistency according to EN 12706		(140 ± 10) mm
Spreading rate		approx. 1750 kg/m ³
Pot life (at 5-30°C)		approx. 20 min
Average thickness of layer (design thickness)		4 mm
Usage:	unit – at layer of 10 mm	approx. 17.5 kg/m ²
	at average layer of 4 mm	approx. 7 kg/m ²
Spreading rate from one bag (25 kg) – screed area at an average thickness of 4 mm		approx. 3.6 m ²
Surfaces loaded by walking people (final walking surface) – waiting time		after 12 hours
Full load-bearing capacity		after 72 hours

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

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. Any cracks and surface cavities over 15 mm need to be repaired in advance. It is advisable to fill expansion joints in the base (sealing, **PES** sealing cord, etc.), or embed with a stopper in advance. The course of base

LASSELSBERGER, s.r.o.
Adełova 2549/1
320 00 Plzeň - Jižní Předměstí
Czech Republic

TEL +420 378 021 111
FAX +420 378 021 119
E-MAIL info@rako.cz
WEB www.rako.cz

BANK DETAILS: Česká spořitelna, a. s.
6221912/0800
Company ID number 25238078
Tax ID number CZ25238078

TECHNICKÝ LIST /

dilatations should be marked so that the dilatations are visible again after cutting. The cleaned repaired base is to be provided with a PE 202 penetration coating (concentration and number of penetration coatings - see the Table).

Base type	Penetration type – dilution – number of coatings	Usage of concentrated penetration	
Highly absorbing (lightweight concrete)	PE 202 : H ₂ O 1st coating 1 : 5; 2nd and 3rd coating 1 : 3	PE 202 :	0.35 l/m ²
Medium absorbing (normally polished concrete)	PE 202 : H ₂ O 1st coating 1 : 5; 2nd coating 1 : 3	PE 202 :	0.25 l/m ²
Low absorbing (mechanically polished concrete)	PE 202 : H ₂ O one coating 1 : 3	PE 202 :	0.15 l/m ²

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.

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 for approx. 2 minutes to form a liquid homogeneous mass, allow the mixture to stand for approx. 1/2 minutes, then briefly stir again at slow speed. Check the flowing properties/consistency of application by the flow test according to EN 12706. After uniform pouring the mass onto the base surface, the layer should be brought to the desired thickness as required, using a toothed trowel, and continuously de-aerated using a porcupine roller, which also helps to level the surface. In case of machine application, stirring is carried out, for example, with the m-tec duo-mix device, or PFT machine with accessories recommended by the manufacturer for applications of self-levelling floor materials. 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. 12 hours after application. If the floor tiles are glued with cement adhesive, the drying time is at least for 4 days. Laying of steam-non-permeable floor coverings (such as PVC, glued carpets and parquets, coatings, etc.) can be done after drying the stopper. Under normal conditions, to achieve the equilibrium moisture content, the stopper needs 1 day for 1-2 mm of thickness. The surface may be fully loaded after laying of floor covering.

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 prescribed temperature conditions must also be followed for at least 7 days after application.
- 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., Adolova 2549/1, 320 00 Pilsen – Jižní Předměstí

VALIDITY:

Since 1 September 2015

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

LASSELSBERGER, s.r.o.

Adolova 2549/1

320 00 Plzeň - Jižní Předměstí

Czech Republic

TEL +420 378 021 111

FAX +420 378 021 119

E-MAIL info@rako.cz

WEB www.rako.cz

BANK DETAILS: Česká spořitelna, a. s.

6221912/0800

Company ID number 25238078

Tax ID number CZ25238078