

LE 40 DINO

Levelling material



Self-levelling, polymer-cement, quick-setting levelling material for layers of 4-20 mm.

DECLARATION: EN 13813 POLYMER-MODIFIED CT-C40-F10-B2,0-RWA10

Polymer-modified cement screed material (CT) according to EN 13813, intended for screeds subject to abrasion.

APPLICATION:

Self-levelling screed for manual and mechanical treatment in interiors.

This product is intended for the levelling of bases before the laying of ceramic floor tiles and other floor covering materials, and before the applying of polyurethane stoppers and epoxy coatings EPA 5G or EPA 5M.

A reliable final layer for highly stressed floors in civilian buildings and heavy-duty plants (workshops, garages for lorries, production sites with the operation of forklift trucks with a loading capacity of up to 2.5 t).

This product can be applied to most common bases, such as concrete, stone, brick, and ceramic tiles.

The stopper can also be applied as a reinforcement top layer to anhydrite (plaster) screeds, but not in combination with built-in floor heating in the screed or stopper (in this case, LE 30 GPS can be used).

This product is ideal for other bases with built-in floor heating, and for the embedding of heating cables and mats of electric floor heating.

It is applied in a thickness of 4-20 mm, in one or more layers – the optimal design thickness is approx. 4-6 mm, depending on the surface loading – if it is used as a final surface of the floor loaded with vehicles, it must be applied in a minimum layer of 6 mm.

In humid environments, it must be protected by hydrophobising agents or coatings; in increased demands on chemical resistance, it is possible to apply suitable protective coatings and synthetic stoppers intended for concrete.

COMPOSITION:

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

TECHNICAL PARAMETERS:

MANDATORY			
Compression strength (class C40)	min. 40.0 MPa	Reaction to fire	Class A1 _n
Tensile bending strength (class F10)	min. 10.0 MPa	Release of dangerous substances	CT
Binding force (class B2, 0)	min. 2.0 MPa	Volume weight of hardened mortar	1850-2050 kg/m ³
Resistance against rolling load abrasion	class RWA 10	Coefficient of heat conductivity λ	min. 1.2 W/m.K *)
*) tabular value			

INFORMATIVE		
Grain size		0-0.7 mm
Amount of mixing water:	per 1 kg of dry mixture	0.20-0.21 l/kg
	per 1 bag (25 kg)	5-5.25 l
Consistency according to EN 12706		(140 ± 10) mm
Spreading rate		approx. 1700 kg/m ³
Pot life (at 5-30°C)		20-30 min
Average thickness of layer (design thickness)		5 mm
Usage:	unit – at layer of 10 mm	approx. 17 kg/m ²
	at average layer of 5 mm	approx. 8.5 kg/m ²
Spreading rate from one bag (25 kg) – screed area at an average thickness of 5 mm		approx. 3 m ²
Surfaces loaded by walking people (final walking surface) – waiting time		after 6-8 hours

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

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Tax ID number CZ25238078

The company is registered in the Companies Register, administered by the Regional Court in Plzeň, Section C, File 22719

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 20 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 dilations should be marked so that the dilatations are visible again after cutting. The cleaned and repaired base is to be provided with PE 202 penetration, or CP 203 contact 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, anhydrite)	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
Non-absorbing (ceramics, stone, hardened polymers)	CP 203 one coating	CP 203:	0.25 kg/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 (according to concentration). 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 for approx. 1-2 minutes with a frequency of 400-600 rpm to form a liquid homogeneous mass, allow the mixture to stand for approx. 1/2 minutes, then briefly stir again at slow speed. 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 application consistency is checked in advance by the flow test according to EN 12706. 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 min. 24 hours to avoid quick drying or heat shocks (draft, direct sunlight, radiant heat from heaters, etc.). If the stopper is cast in more layers, the second and subsequent layers should be applied not earlier than 24 hours after applying the previous layer.

Loading, drying:

The surface is intended as a final walking surface after approx. 6-8 hours after application; tiles can be glued with cement after approx. 24 hours; 2/3 operating load is admissible after 7 days, and full load after 28 days. Under normal conditions, to achieve the equilibrium moisture content, the stopper needs 1 day for 1-2 mm of thickness.

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! Lower and higher temperatures may have a negative impact on the application and functional properties of this material. The prescribed temperature conditions must also be followed for at least 7 days after application.
- 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.

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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 TZÚS 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.