TECHNICKÝ LIST /

MO 50

Corrective material

Polymer-cement reprofiling mortar for repairs of concrete.

DECLARATION:
Rendering and plastering mortar (GP) according to EN 998-1, category CS IV and W_c 2.

APPLICATION:

This special corrective mortar is intended for the replacement of damaged and corroded concrete in internal and external environments. Repair of mechanical damages of concrete structures, for example in connection with the effects of used chemical defrosting agents. The specific properties of this mortar enable easy renovation of building structures also on ceilings, with the coating layer from 3 to 35 mm in one working step.
This mortar is intended for manual and machine application (plastering machine).

Characteristic features:

- excellent adhesion to the base
- highly thixotropic with very good processibility
- high mechanical strength and durability
- high resistance to de-icing salts
- shows minimum shrinkage and resistance to expansion

COMPOSITION:

Aggregates, cement, redispersible polymer, and other additives improving processing and end-use properties of the product.

TECHNICAL PARAMETERS:

MANDATORY			
Compressive strength *)	min. 45.0 MPa	Reaction to fire	Class A1/$A1_{fl}$
Binding force – method of separation (FP)	min. 0.5 MPa (FP: B)	Volume weight of hardened mortar	2000-2200 kg/m^3
Capillary absorption of water (category W_c 2)	max. 0.2 kg/m^2.$min^{0.5}$	Heat conductivity ($\lambda_{10, dry}$)	max. 1.65 W/m.K **)
Water vapour permeability coefficient (μ)	max. 120	Pot life (at 5-30°C)	min. 45 min
Durability – number of cycles ***)	min. 15		

*) category CS IV (compressive strength ≥ 6 MPa)
**) tabular value (P = 50%)
***) testing of frost resistance of mortar according to ČSN 72 2452

INFORMATIVE		
Grain size		0-1.2 mm
Amount of mixing water:	per 1 kg of dry mixture	approx. 0.13 l/kg
	per 1 bag (25 kg)	approx. 3.3 l
Spreading rate		approx. 1900 kg/m^3
Admissible thickness of layer		3-35 mm
Unit usage – at layer of 1 mm		approx. 1.9 kg/m^2
Chloride content		max. 0.1 %
Tensile bending strength		min. 9.0 MPa

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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

RAKO SYSTEM

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INFORMATIVE	
Bond strength (EN 1542)	min. 0.8 MPa
Bound shrinkage/expansion – bond strength after testing	min. 0.8 MPa
Static modulus of elasticity in compression E_c	min. 18.5 GPa
Coefficient of thermal expansion $\alpha_{-20/40}$	11.10^{-6}/°C
Resistance to salts (150 cycles) – waste (degree of disturbance 1 – undisturbed)	max. 50 g/m^2

NOTE: The technical parameters are determined under standard conditions (20 ± 2)°C and65 ± 5)% of relative air humidity.

BASE PREPARATION:

The base must be clean, absorbing, load-bearing, rough, free of any impurities, and should not be frozen. Any residues of oil, petrol, dispersion paint, etc. must be removed from the surfaces. The surface should be cleaned, for example by milling, sand blasting, shot blasting, or high-pressure water jet. The concrete containing corrosion inhibitors, such as chlorides, should be removed.

The bond strength of the base must be greater than 1.5 MPa! Reinforcing steel components must be treated with the MO AC anticorrosive coating – the drying time is approx. 5 hours. The repaired concrete should be treated with the PE 201 penetration coating – reprofiling mortar should be applied after 4-6 hours.

PROCESSING:

Pour the MO 50 mortar into a prescribed amount of water, and mix thoroughly (for approx. 3 minutes) using a low-speed stirrer, to product a thick, homogeneous mass. Allow the mixture to stand for approx. 5 minutes, then mix it again shortly, and apply on the prepared base. Reprofiling mortar is applied on a penetrated base, using a spatula, trowel, smoother, or by spraying. First, mortar should be forcibly pressed into the base, and after this operation, the damaged site should be levelled. Deep surfaces with potholes must be repaired in several work steps (layers), and intermediate layers must be roughened, and treated with penetration (after curing). A two-layer method of application is necessary when repairing reinforced concrete – the first layer of reprofiling mortar needs to be pressed up to the upper level of reinforcement, and, after a technological break, the second layer of reprofiling mortar is to be applied (no penetration is needed before applying the second layer, only dry areas should be moistened with water). Mortar should not stand out from the edges of surfaces with potholes. Then, the mortar surface should be smoothed, or levelled using a lath. Mortar is suitable for layers from 3 mm, and the maximum thickness of layer in one step must not exceed the permissible thickness. During the first days after application, the applied mortar must be protected from too rapid drying (by covering or moisturising), and from frost. The repaired areas must be treated in this manner for at least 5 days. Strong effects of heat and agitated air should be avoided. Working tools should be cleaned with water from time to time.

CAUTION:

- For design of masonry structures, design considerations, selection of materials and execution of masonry, EN 1996-2 should be followed.
- When designing, preparing, and applying plasters, EN 13914-1 and EN 13914-2 (ČSN 73 3715 for internal plaster systems) should be followed.
- The mixture can be mixed only with drinking water, or water conforming to EN 1008.
- It is inadmissible to add additional binders, aggregates, and other additives. Sifting of the mixture is inadmissible too.
- The mixture can be processed only under the air and base temperature over +5°C! Lower temperatures and higher relative humidity prolong the time of drying and load-bearing capacity! Do not apply if frost conditions are expected!
- Unused residues should be mixed with water and allow them to harden – they can be disposed of as construction wastes; 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, HYGIENE REGULATIONS, AND DANGEROUS SUBSTANCES:

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 TZÚS Prague, OS 1020.

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DISTRIBUTOR:

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

VALIDITY:
Since 1 October 2018
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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