


## SE 6

### Waterproofing

	<p>Flexible, single-component, silicate-dispersion waterproofing stopper for internal and external environments.</p> <p><b>DECLARATION:</b> Liquid-applied water impermeable cement product, with the ability to bridge cracks at lower temperatures (-5°C), and resistant after contact with chlorinated water, type/class CMO1P according to EN 14891.</p>
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#### APPLICATION:

The dry mixture which, after mixing with water, creates a flexible seamless waterproofing with the ability to bridge cracks subsequently created in the base.

The hydraulically-setting insulation material is suitable for all types of mineral bases (for example, plaster, concrete, anhydrite, plasterboard), wood particleboards, and the like, including bases with built-in heating.

This product is exclusively intended for applications with covering elements – ceramic and glass tiles, natural and artificial stones, perimeter polystyrene, dimpled film, and the like.

This product is ideal for areas subject to moisture – foundations, outer walls of substructures, tanks, walls and floors in internal and external environments, such as water parks, swimming pools, bathrooms, showers, toilets, balconies, terraces, and the like.

This product is not suitable for surfaces under the load of vehicles, subject to shear stress.

It is part of the RAKO SYSTEM system solution – SWIMMING POOLS and RAKO SYSTEM system solution – BALCONIES.

#### Characteristic features:

- rapid and easy processibility
- curing without pre-tensioning or cracks into the specified thickness of layer
- good adhesion to base
- water-tightness also for high-pressure water
- resistant to common disinfecting and defrosting agents
- resistant to frost and ageing
- gluing of ceramic wall and floor tiles directly on the stopper, using the AD series flexible adhesives
- safe for the environment

#### COMPOSITION:

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

#### TECHNICAL PARAMETERS:

MANDATORY			
Watertight integrity:		Initial tensile adhesion strength	min. 0.5 MPa
- penetration of high-pressure water (150 kPa)	0 mm	Tensile adhesion strength:	
- weight gain	max. 20 g	- after water contact	
Crack-bridging ability:		- after heat ageing	
- under standard conditions	min. 0.75 mm	- after freeze/thaw cycles	
- at low temperature (-5 °C)		- after contact with lime water	
- at very low temperature (-20°C)		0.50 mm *)	- after contact with chlorinated water
*) measured value			

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

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

INFORMATIVE			
Colour			grey
Amount of mixing water:	stopper	per 1 kg of dry mixture	0.23-0.25 l/kg
		per 1 bag (20 kg)	4.6-5 l
	coating	per 1 kg of dry mixture	0.29-0.31 l/kg
		per 1 bag (20 kg)	5.8-6.2 l
Spreading rate			1.35-1.40 kg/m <sup>3</sup>
Recommended total thickness of layer:	for non-pressure water in internal environments (2 coatings)		min. 1 mm
	for non-pressure water in external environments (2 stopper coatings)		min. 2 mm
	for high-pressure water in external environments (3 stopper coatings)		min. 3 mm
Unit usage – at layer of 1 mm			approx. 1.5 kg/m <sup>2</sup>
Pot life *)			max. 1 hour
Drying time *):	1st coating – walking surface with care		after approx. 4 hours
	2nd coating – final walking surface and laying of tiles		after approx. 20 hours
Loading:	mechanical		after approx. 3 days
	water		after approx. 7 days
Tensile strength			min. 2.0 MPa
Relative elongation			min. 13 %
*) † at 20°C and 65% air relative humidity			

#### BASE PREPARATION:

The base should have shape stability, be solid, clean, free of dust and loose particles, free of film-forming agents with the effect of separation, and should not be frozen. Base surface irregularities and defects (cracks, cavities, potted surfaces, open air caverns in concrete, etc.) must be repaired locally, or on the entire surface with suitable levelling or reprofiling mortar, or materials, screed, levelling or screed (such as **LE 10**, **MO 50**, and **OV 40**), which must be fully cured before application of waterproofing. Depending on the suction capacity of bases, all common bases are penetrated 1x or 2x with the **PE 201** or **PE 202** penetration coating.

If plate bases are used, their shape stability must be ensured (elimination of any deflections and displacements). Permissible bases include all fine-textured, porous concrete and masonry surfaces and plaster surfaces – inside buildings - mortars of at least CS II category, outside buildings - mortars of at least CS III category, and, in the case of structures exposed to high-pressure water, these must be dimensioned according to static calculations. In areas exposed to water, the **SE 5** flexible sealing tape (type 80, 100, 120, or 150) should be used to overlap rectangular transitions of the base, or any expansion joints. The tape should be placed into the first fresh waterproofing stopper layer, and the second layer of stopper will overlay the tape and its overlapped joints.

#### Mixing procedure:

Measure the prescribed amount of water in a clean container according to the selected consistency (coating/stopper), and, under constant movement of a slow-moving propeller mixer, gradually add the proper amount of dry mixture. It is recommended to prepare such an amount of material which can be applied within 1 hour of mixing. At the medium speed (approx. 400 rpm) and even movement of the mixing whisk in a container, stir the mixture for approx. 3 minutes to form a smooth, homogeneous consistency. The stirring part of the whisk should be immersed during agitation to avoid aeration of the material.

#### PROCESSING:

The material is applied on the prepared base according to the selected consistency, either as a coating applied with a brush or roller, or as a stopper, applied with a stainless steel trowel, always as a single layer covering the entire surface. The thickness and number of layers must correspond to the required degree of protection, i.e. expected moisture load and location of the structure (see the Table TECHNICAL PARAMETERS). The time delay between applications of individual layers is approx. 6 hours under normal conditions, or approx. 12 hours in the case of a stopper layer. During and 24 hours after application, the material must be protected from contact with water (rain, service water on site), direct sunlight and frost, which could cause its degradation. Working tools should be cleaned with water immediately after finishing the work. The matured mass can be removed mechanically.

### TECHNICKÝ LIST /

Before application of covering elements (such as tiles), the waterproofing should be protected against gross mechanical damage and aggressive chemicals (strong bases, acids, organic solvents). Under normal climatic conditions, cover layers may be laid on the waterproofing after 24 hours from application of the last layer. For the gluing of tiles, only class C2 adhesives should be used.

#### CAUTION:

- For continuous sheet waterproofing, the basic provisions according to ČSN P 73 0606 should be followed.
- For design of waterproofing of buildings, ČSN P 73 0600 should be followed.
- Passivation of metallic elements should be carried out before application of this product. Contact with metals can result in corrosion, and subsequent damage to waterproofing.
- Related civil engineering structures should be carefully covered and protected from splashes.
- The mixture can be mixed only with drinking water, or water conforming to standard EN 1008.
- It is inadmissible to add additional binders, fillers, and other additives.
- The material can be processed only under air and base temperature ranging from +5°C to +30°C!  
Lower temperatures and higher relative humidity prolong the time of drying and load-bearing capacity!  
Do not apply if frost conditions are expected!
- This product should not be processed in direct sunlight, rain, or high air humidity.
- No warranty is accepted for permanent overlay of construction and technical cracks exposed to extreme movements!
- 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 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 12 months. The expiration date is specified on the packaging.

#### SHIPPING:

The dry mixture is supplied in 20 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.

#### DISTRIBUTOR:

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

#### VALIDITY:

Since 1 March 2017

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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