

# rasolastik evo

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## RASOLASTIK EVO

Monocomponent fiber-reinforced cement-based mortar for waterproofing and protecting concrete.

## waterproofing products

**TECHNOKOLLA®**





≥22±1%  
≤35±1%



60 min



5-35°C



Smooth/  
Roller/  
Brush/  
Spray



3 mm

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## MAIN FEATURES

Monocomponent product  
Reinforcing net not required  
High bonding capacity

Waterproof  
Good crack bridging ability

## APPEARANCE

Grey powder

## STORAGE

12 months in dry place

## FIELDS OF USE

- Waterproofing and protecting waterworks such as basins, tanks, concrete pipes, reservoirs and canals, also containing drinking water.
- Waterproofing and protecting underground outdoor walls.
- Waterproofing walls, floors and basements in the presence of slightly counterthrusting water.
- Waterproofing under tiles on pool, bathroom, terraces and balconies. conforming to the performance requirements of class CMO1P of standard EN 14891:2012.
- Protection of concrete surfaces, in accordance with standard EN 1504-9:
  - 1: Protection against penetration (cladding); 2: Humidity control (cladding);
  - 8: Increased resistivity (cladding).

## SUBSTRATES

Concrete, cement-based plaster and screeds, cement-lime mortar, old ceramic and wood.

## NATURE OF THE PRODUCT

RASOLASTIK EVO consists of high-strength binders, selected quartz mineral charges of fine particle size, synthetic fibers and specific additives. For further details, ask the technical office for the safety brief or download it from the web site [www.technokolla.com](http://www.technokolla.com).

## CONSUMPTION

approx. 1.2 kg/m<sup>2</sup> per mm of thickness

## OPERATIONS PRIOR TO APPLICATION

Substrates must be structurally sound, clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc.

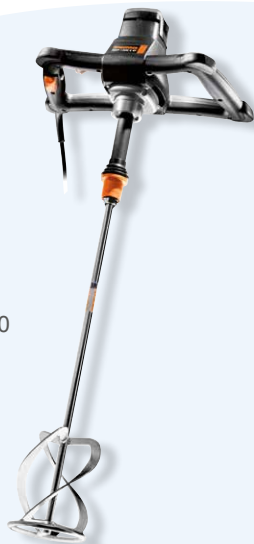
Clean surfaces by sandblasting, high-pressure water-jetting (400 bar), wire-brushing, sanding on ceramic tiles, etc. in order to eliminate dust deposits, previous coatings, traces of grease, rust, form-removal agents, paintings, cement laitance and other substances which may harm RASOLASTIK-EVO adhesion onto the subgrade. Repair concrete substrate, if necessary, with cementitious mortar.

Cracked concrete or gaps around pipes, light fittings and systems must be sealed with REPAIR.

## waterproofing products



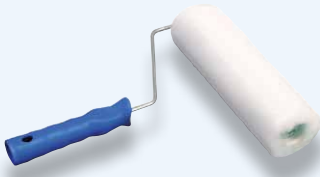
## RECOMMENDED ACCESSORIES



**437145**  
Blender 1200



**437187**  
28x12 cm smooth trowel



**437184**  
25 cm acrylic roller



**437337**  
Strip RL 120

## HOW TO PREPARE THE SUBSTRATE

It may be advisable to create jointing coves between floor and walls using GAP pre-mixed mortar to achieve an optimum waterproofing result in swimming pools, tanks, reservoirs and underground rooms. It is important to wait until the new substrates have become properly weathered. The more frequent cases with their recommended weathering periods are listed in the table below. The substrate must be properly dampened before application. Avoid stagnant water or condensate before application (the dampened surface must be dark matt).

SUBSTRATE	MINIMUM TIME INTERVAL BEFORE APPLICATION
KRONOS screeds	5 days
Cement-based screeds	28 days
Cement-based plaster	3 weeks
Concrete	3 months

## HOW TO PREPARE THE MIXTURE

Blend the powder (20 kg bag) with water until the mixture is homogeneous, lump-free and of suitable consistency. It is advisable to use blender at low speed (approx. 500 rpm). Allow the mixture to rest for 5 minutes then stir again briefly, after which it is ready for use. Do not add anything to the mixture. Prepare all the product in the package to prevent the particles of aggregate in the powder component from being distributed unevenly through the mixture.

## APPLICATION OPERATIONS

Wet the substrate. Avoid condensation and do not allow water to stagnate.

It is absolutely essential to reinforce the waterproofing layer with STRIP RL 120 on a level with joints, corners, contact points between different types of materials. STRIP RL 120 must be applied to the first layer of fresh mortar and then covered with the second layer.

- The total thickness of the product must be at least 3 mm, applied in at least 2 coats.
- Trowel application: apply two coats of product with a smooth steel trowel. Press the mortar into the substrate to ensure perfect contact. 2 mm is the maximum thickness recommended for each layer.
- Roller application: apply the product in three coats with a medium-short fleece roller so as to spread it over the substrate as smoothly as possible. 1 mm is the maximum thickness recommended for each layer applied.
- Brush application: spread the product in three crossed coats. 1 mm is the maximum thickness recommended for each layer.
- Spray gun application: Contact the Technical Office.
- To obtain a smooth surface, wait until the product has completely hardened before rubbing to remove any unevenness.

RASOLASTIK EVO must have completely hardened before being covered or allowed to come into contact with water.

Ceramic tiles and vitrified mosaic can be applied to RASOLASTIK EVO using class C2 adhesives such as TECHNO-XT or higher.

Clean all tools and utensils with clean water immediately after use. Once hardened, the product can only be scraped off. Comply with the following time intervals:

	20°C	10°C
Horizontal tiling	~ 2 days	~ 7 days
Vertical tiling	~ 2 days	~ 3 days
Water-based emulsion paint	~ 2 days	~ 3 days
Immersion in water	~ 2 days	~ 7 days
Contact with drinking water	~ 15 days	~ 15 days

The time intervals may differ, depending on the degree of humidity and the substrate.

## WARNINGS AND RECOMMENDATIONS

- Protect from the rain for at least 24/48 hours after application.
- Avoid direct contact with chlorinated water in swimming pools by covering with tiles.
- Do not apply, and protect freshly applied product in case of direct sunlight, strong wind or if rain is imminent.
- The product may take longer to harden if the site is damp, e.g. in closed rooms or poorly ventilated basements. Ventilation systems must be used.
- Prior to contact with drinking water, make sure that the product has completely hardened. Comply with the recommended time intervals. After this, thoroughly wash the surfaces and eliminate stagnating water before filling.
- If the surface must be coated with solvent-based paint, conduct preliminary tests to make sure that the solvent does not damage the waterproofing layer.
- The product can not be smoothed using float or sponge trowel.
- RASOLASTIK-EVO is permeable to water vapour and does not form a vapour barrier for resin based systems not permeable to gas.

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TECHNICAL DATA	VALUE	REQUIREMENT	STANDARD
Weight density	1.5 kg/liter		
Particle size	Dmax: 0.315 mm		
Mixing ratio - consistency suitable for roller application	approx. 7 liters of water per 20 kg bag		
Mixing ratio - consistency suitable for brush application	6 liters of water per 20 kg bag		
Mixing ratio - consistency suitable for trowel application	4.4 liters of water per 20 kg bag		
Pot-Life at 20°C	approx. 60 min		
Water pressure resistance - Positive	5 bar		EN 12390-B
Water pressure resistance - Negative	2.5 bar		UNI 8298/8
Bond after immersion in salt water - 1 month	1.90 MPa		EN 1542
Bond after immersion in salt water - 3 months	1.52 MPa		EN 1542
Bond after immersion in salt water - 6 months	1.22 MPa		EN 1542
Bond after immersion in salt water - 1 year	1.15 MPa		EN 1542
Permeability to CO <sub>2</sub>	S <sub>D</sub> : 61 m	S <sub>D</sub> ≥ 50 m	EN 1062-6
Water vapour permeability	S <sub>D</sub> : 2.91 m (Class I)	Class I – S <sub>D</sub> < 5 m (permeable) Class II – 5m ≥ S <sub>D</sub> ≥ 50 m Class III – S <sub>D</sub> < 5 m (not perm.)	EN ISO 7783
Liquid water permeability and capillary absorption	0.016 kg·m <sup>-2</sup> ·h <sup>-0.5</sup>	w < 0.1 kg·m <sup>-2</sup> ·h <sup>-0.5</sup>	EN 1062-7
Thermal compatibility (immersion in deicing salts)	approx. 2.40 N/mm <sup>2</sup>	≥ 1 N/mm <sup>2</sup>	EN13687-1
Bond strength	approx. 2.60 N/mm <sup>2</sup>	≥ 1 N/mm <sup>2</sup>	EN 1542
Crack bridging ability	L > 0.5 mm	Class A3 (+23°C)	EN 1062-7
Dangerous substances (Hexavalent chromium)	< 0.0002%	Conforms to point 5.4	EN 196-10
Reaction to fire	A2	Euroclass	EN 13501-1

TECHNICAL SPECIFICATIONS	TEST METHOD	RESULTS	REQUIREMENT	STANDARD
Waterproof (1.5 bar for 7 days)	A.7	No passage of water	No passage of water	EN 14891:2012
Initial tensile strength	A.6.2	approx. 2.2 MPa	≥ 0.5 MPa	EN 14891:2012
Tensile strength after immersion in water	A.6.3	approx. 1.6 MPa	≥ 0.5 MPa	EN 14891:2012
Tensile strength after thermal ageing	A.6.5	approx. 3.0 MPa	≥ 0.5 MPa	EN 14891:2012
Tensile strength after freezing-thawing cycles	A.6.6	approx. 1.1 MPa	> 0.5 MPa	EN 14891:2012
Tensile strength after immersion in limewater	A.6.9	approx. 1.3 MPa	≥ 0.5 MPa	EN 14891:2012
Tensile strength after immersion in chlorinated water	A.6.7	approx. 1.1 MPa	≥ 0.5 MPa	EN 14891:2012
Crack resistance in standard conditions (+23°C)	A.8.2	approx. 0.95 mm (without net)	≥ 0.75 mm	EN 14891:2012
Crack resistance at low temperatures (-5°C)	A.8.3	approx. 0.90 mm (without net)	≥ 0.75 mm	EN 14891:2012

Values obtained after 3.6 kg/m<sup>2</sup> total consumption in two coats.

## APPROVALS / CERTIFICATIONS

Cement-based liquid product (CM) for waterproofing treatments under tiles (glued with class C2 adhesive, according to EN 12004) with crack bridging ability at low temperatures (-5°C) and suitable for contact with chlorinated water, in compliance with the requirements established by EN 14891:2012 in class CMO1P. Conforms to annex ZA Table ZA.1 DoP No. 02 07 01 01 001 0 000231 1026. 14891: the notified test laboratory Modena Centro Prove S.r.l., Lab. No. 01599 performed the initial type tests on samples taken by the manufacturer, in accordance with AVCP System Type 3 testing and issued test report No. 20142364.

### SPECIFICATION

Substrates on which ceramic tiles must be laid must be waterproofed with cement-based mortar such as TECHNOKOLLA'S RASOLASTIK EVO, to be blended with water alone.

**Technokolla** reminds you to examine the “notes” document that completes the information in this data sheet. The document can be downloaded in the pdf format from the website [www.technokolla.com](http://www.technokolla.com).

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