



Rev 1  
11/24



# IDROEPOGRAUTEK

Waterproof chemical barrier for wet substrates, three-component epoxy-cement in negative thrust



## DESCRIPTION

IDROEPOGRAUTEK is a three-component thixotropic epoxy-cementitious product designed to guarantee impermeability and excellent resistance to negative pressure, in constant contact with humidity or water inflows and salt attacks. Made using special resins, cementitious binders and selected aggregates, it guarantees effective protection against moisture infiltration and any corrosion due to contact with mineral or saline waters.

IDROEPOGRAUTEK It is a waterproof coating even under conditions of negative hydraulic thrust, making it ideal for the restoration and regularization of wet substrates. The coatings made with this product have excellent resistance to chemical and physical damage, such as freeze-thaw cycles, ensuring good durability. It shows remarkable ductility, ensuring perfect impermeability even after periods of exposure to different temperatures and environmental conditions.

## FIELDS OF APPLICATION

- Negative pressure moisture blocking.
- Restoration and protection of damp substrates and with rising humidity on both vertical and horizontal surfaces prior to resin cycles.
- Rigid waterproofing of slabs and bridge decks.
- Renovation, waterproofing and blocking of infiltration and counterthrust humidity in retaining walls, basements, garages, elevator pits and basement rooms.
- Chemical barrier against wet rising and for skimming damp substrates.
- Encapsulating treatment of moisture and saltpeter in damp masonry before applying dehumidifying plasters.
- Base layer in the coating cycle for tanks of biogas plants.
- Coating and rigid waterproofing of tanks, ducts and concrete surfaces in contact with water.

## ADVANTAGES

IDROEPOGRAUTEK It is an epoxy-cementitious waterproofing agent for wet substrates. Its advantages are:

- High adhesion to concrete and cementitious materials in general even in the presence of humidity.
- Water impermeability allowing the disposal of residual moisture.
- Excellent resistance to both positive and negative hydraulic pressure and prevents the infiltration of rising damp.
- Quick and easy application with a trowel even at low temperatures thanks to the quick setting
- It effectively resists saline aggression by acting as a barrier against saltpeter rising.

## SPECIFICATIONS

ASPECT  
COLOR

Liquid (A and B) and Powder (C)  
White (A), Amber (B) and Grey (C)

TECHNICAL DATA SHEET



TEKNA CHEM S.p.A.

Factory: Renate (MB) - Via Sirtori, 18 - 20838 - Tel. +39 0362.91.83.11

Web: [www.teknachemgroup.com](http://www.teknachemgroup.com) - E-mail: [info@teknachemgroup.com](mailto:info@teknachemgroup.com) - Fax: +39 0362.91.93.96



DENSITY - EN ISO 2811	Component A: approx. 1.03 kg/l $\pm$ 0.03 Component B: approx. 1.23 kg/l $\pm$ 0.04
VISCOSITY - EN ISO 3219	Component A: approx. 700 mPa.s Component B: approx. 1000 mPa.s
DRY MATTER CONTENT - EN 480-8	Component A: approx. 52 % Component B: approx. 37 %
MAXIMUM AGGREGATE SIZE - EN 1015-1	0.5 mm
PRESERVATION	12 months

## APPLICATION SPECIFICATIONS

COLOR OF THE DOUGH	Grey
MIXING RATIO	A:B:C=1:3:13,5
PLASTIC DENSITY	1.86 kg/dm <sup>3</sup> $\pm$ 0.05
APPLICATION TEMPERATURE	+5 to +35°C
OPERATING TEMPERATURE	-30 to +100°C
WORKABILITY TIME	30 minutes approx. (+20°C and 50% RH)
WAITING TIME BETWEEN LAYERS	min 6 hours / max 24 hours depending on the temperature and humidity of the substrate
WALKABILITY	4-6 hours depending on media temperature and humidity
CONSUMPTION	<ul style="list-style-type: none"><li>• 1.86 kg/m<sup>2</sup> approx. per mm thickness (nominal)</li><li>• 1.5 kg/m<sup>2</sup> (per coat)</li><li>• 1.5 ÷ 2 kg/m<sup>2</sup> approx. (recommended minimum used as a positive thrust waterproofing agent)</li><li>• 2.5 kg/m<sup>2</sup> approx. (minimum recommended used as a negative thrust waterproofer)</li></ul>

## PREPARATION OF THE SUBSTRATE

### CLEANLINESS

- Remove stains, efflorescence or impregnation of oil, grease, paint, dust, dirt or any residue that may facilitate detachment.
- Remove all inconsistent parts of concrete from the area affected by the restoration, the mortars containing lime, removing them up to visible aggregate.

### PREPARATION

- "Open" the surface with mechanical means such as bush-hammering machines, chiseling machines, scarifiers or hydrodemolition (the latter does not cause damage to the substrate and is recommended for large surfaces) reaching the healthy and mechanically resistant substrate to facilitate the adhesion of the .IDROEPOGRAUTEK
- On healthy, compact surfaces, simply moisten the substrate before applying .IDROEPOGRAUTEK
- If the substrate proves to be particularly friable or porous, a consolidating impregnating treatment with IDROEPOTEK H2O must be carried out.

## PREPARATION OF THE DOUGH

IDROEPOGRAUTEK it is a three-component product (A+B+C).

Mixing must be carried out carefully with the help of a mixer drill at low speed, to avoid the incorporation of air bubbles.

Mix component A with component B with a mechanical agitator to obtain a uniform mixture. Gradually add component C (powder) and continue mixing for about 5 minutes until the mixture is completely homogenized.

For correct use, respect the indicated mixing ratio so as not to affect the polymerization reaction.IDROEPOGRAUTEK

The product retains its workability for about 30 minutes (at +20°C).





## HOW TO USE

### INSTALLATION

Apply with a spatula on the properly prepared surface as described above, taking care to distribute the product evenly. The application temperature must not be lower than +5°C. Apply a second layer of after the hardening of the first one, crossing the two coats. Wait about 24 hours (depending on environmental conditions) before passing over the mantle or proceeding with the application of another coating.IDROEPOGRAUTEKIDROEPOGRAUTEK

### FINISH

IDROEPOGRAUTEK Thanks to its high abrasion resistance and pleasant aesthetic finish, it can be left exposed. In addition, a protective coating based on polyurethane or epoxy resins can be made on top of the final layer of , after sanding and application of the relative adhesion promoter.IDROEPOGRAUTEK

## PERFORMANCE CHARACTERISTICS

+20°C - 50% RH - thickness 1 mm

Characteristic	Method pilot	Minimum requirements EN 1504-2	Performance requirements
Adhesion to concrete	UNI EN 1542	≥ 1.5 MPa	> 2.8 MPa at +20°C
Adhesion to wet concrete	UNI EN 13578	≥ 1.5 N/mm <sup>2</sup>	> 2 N/mm <sup>2</sup> at 20°C
Compressive strength at 28 days	UNI EN 12190	Class I or II	Class I – 40 MPa
FLEXURAL STRENGTH at 28 days	UNI EN 196-1	-	> 10 MPa
WATER IMPERMEABILITY expressed as capillary absorption coefficient	UNI EN 1062-3	W < 0.1 kg/m <sup>2</sup> x H0.5	W < 0.1 kg/m <sup>2</sup> x H0.5
CAPILLARY ABSORPTION (*)	UNI EN 13057	-	< 0.003 kg/m <sup>2</sup> x h0.5 (*)
WATER VAPOUR PERMEABILITY - SD equivalent air thickness (m):	UNI EN 1062-3	Class	class I - SD < 5 m (permeable to water vapour)
THERMAL COMPATIBILITY Freeze-thaw cycles with immersion in de-icing salts (50 cycles)	UNI EN 13687-1	no bulge, cracking and Delamination	No bulging, cracking and delamination
THERMAL COMPATIBILITY Thunderstorm cycles (thermal shock)	UNI EN 13687-2	Adhesion test for Direct Drive: rigid systems with Traffic: ≥ 1.5 N/mm <sup>2</sup>	No bulging, cracking and delamination > 2 N/mm <sup>2</sup>
THERMAL COMPATIBILITY Thermal cycles without immersion in de-icing salts	UNI EN 13687-3		
REACTION TO FIRE after application:	UNI EN 13501-1	Euroclass	Bfl S1 Classification
PERMEABILITY TO CARBON DIOXIDE (CO <sub>2</sub> ) - Diffusion in thickness of equivalent air SD:	EN 1062-6	SD > 50 m	> 50 m
RESISTANCE TO POSITIVE HYDRAULIC THRUST (500 kPa for 72 hours)	UNI EN 12390-8	-	No permeation
RESISTANCE TO NEGATIVE HYDRAULIC THRUST (250 kPa for 72 hours)	UNI 8298-8	-	No permeation

(\*) Value obtained by making a thickness of 3 mm.

## PRECAUTIONS

Application temperature: from +5°C to +35°C. In case of application at low temperatures, it is recommended to store the two resinous components (A and B) in a heated environment for the previous 36 hours. Indoors, provide good ventilation. Do not use on supports with dynamic cracks. In this case, consult the technical sales department.

Safety: Component A is irritating and contains epoxy resins; component B is also irritating and contains polyamines adopted; component C is irritating and contains hydraulic binders.

## PACKAGING

IDROEPOGRAUTEK It is available in kits consisting of:

1 bucket of 1 kg (A) +

1 bucket of 3 kg (B) +





1 bucket of 13.5 kg (C) =  
(A+B+C) 17.5 kg.

## STORAGE

In the original packaging and correctly stored indoors in a dry place, the product retains its characteristics for one year.



## LEGAL

The information contained in this technical data sheet, although representing the most advanced stage of knowledge, does not exempt the user from carrying out accurate preliminary tests in his own conditions of use and operation. Therefore, no liability is accepted for improper use of the product.

