

ADINGPOKS N

Epoxy-based, solvent free adhesive for structural bonding between new and existing concrete.

In compliance with: EN 1504-4 /4.4

FIELD OF APPLICATION

Structural adhesive used for bonding fresh concrete or mortar and existing (hardened) concrete or other construction material. Adingpoks N achieves adhesion higher than the tensile strength of the concrete. Typically, it is used for preparation of construction joints (brakes between different phases of concreting), bonding new concrete screeds/plates on existing concrete substrate, or reparation, replacement or strengthening of damaged concrete or reinforced concrete sections - during reparations. Adingpoks N is also used for grouting of anchors.

PROPERTIES

- Three component mixture;
- No shrinkage during material setting;
- Excellent adhesion to various substrates;
- High mechanical performances;
- High compression strength;
- High tensile and share strength;
- Applicable on moist and water-dumped substrate;
- Waterproofed;
- Ecological, solvent-free

TECHNICAL CHARACTERISTICS

Properties	Declared value
Appearance A com	Light brown viscous liquid
Appearance B com	Amber-colored viscous liquid
Appearance C com	Quartz sand
Mixing ratio :	A:B:C = 3:1:2
Mixture specific weight:	1.4-1.5 g/cm ³
Application temperature:	5°C to 30 °C
Compressive strength (According to EN 12190)	≥30 MPa
Adhesion strength (According to EN 12636)	≥ 2 MPa; (Crash in concrete)
Share strength (According to EN 12615)	≥6 MPa
Open workability time при T= 23 °C	1-2 hours

CONCRETE REPAIR

METHOD STATEMENT

SUBSTRATE PREPARATION

Proper substrate preparation is essential for establishing structural bond between layers that are bonded. Concrete substrate, on which Adingpoks N is applied need to have high mechanical properties, to be clean, all unstable sections need to be mechanically removed (using water or sand blasting). Residues of grease, existing coatings and other pollution need to be removed. During application of material, there must not be water dumped on the surface of the concrete. Ambient and substrate temperature during application of material need to be between +10°C to +30°C.

APPLICATION

Material is prepared by mixing A and B component individually, than inter-mixed in clean and dry metal bucket. Two components are mixed in precise ratio, using slow electrical mixer (max 300-500 rotation/min). Powdery component - C is gradually added in the mix with constant mixing until complete homogenization. Application of material is conducted with metal trowel or hard brush in layers 1-2mm thick. Fresh concrete is applied until Adingpoks N is still fresh and sticky when touched (30-60 after application depending on the temperature). In case if Adingpoks N set before new cement/concrete mixture is applied, prior to concreting it is necessary to apply new layer of Adingpoks N using the same procedure.

CONSUMPTION

Material consumption depends of absorption and roughness (texture) of the substrate. Furthermore, consumption depends on the application temperature (at low temperatures, material thickness and consumption increases).

Consumption for layer 1,0mm thick: 1,4-1,5 kg/m²

ANCHOR GROUTING

In case Adingpoks N is used for steel anchor grouting, anchor halls need to be minimum 5mm wider than the anchor, cleaned from dust with compressed air. Depending on the diameter and the position of the anchor hall, Adingpoks N can be prepared using smaller quantity (or without) C-component (quartz sand), in order to achieve higher flow ability of material and easier filling of the space between steel anchor and the surrounding concrete. Prepared material Adingpoks N is poured in the opening (filling approximately 1/2 of the depth) than anchor is forced in spilling excess material from the hall. Alternatively, when material can be applied by grouting-pouring in the hall, in which case opening must be minimum 10mm wider than the anchor.

CLEANING

Tools and equipment are cleaned with Solvent-P immediately after use.

PACKAGING

Set 6.6 kg

A component: 3.3 kg

B component: 1.1 kg

C component: 2.2 kg

Set 21 kg

A component: 10.5 kg

B component: 3.5 kg

C component: 7 kg

STORAGE

In original, closed packing, in dry chambers, at temperatures from +10 to +30°C. Shelf life 9 months.

CE MARKING

<p>CE</p> <p>2032</p>	
<p>ADING AD Skopje, Novoselski pat (ul 1409) br.11 1060 Skopje, Republic of North Macedonia</p>	
<p>16</p>	
<p>GCAA001/7 EN 1504-4 : 2004 ADINGPOKS N Epoxy adhesive for structural strengthening and bonding of existing concrete and new fresh concrete or mortar</p>	
Compressive strength	≥ 30 N/mm ²
Adhesion strength with pull off test	Fracture in concrete
Shear strength	≥ 6 N/mm ²
Shrinkage	< 0,1 %
Modulus of elasticity in compression	≥ 2000 N/mm ²
Suitability for application and curing under special environmental conditions (wet surfaces)	Fracture in concrete
Open time	≥ 80 min
Pot life	120±20 at (23±2)°C
Glass transition temperature	≥ 40°C
Coefficient of thermal expansion	≤ 100·10 ⁻⁶ (1/°C)
Durability	Pass
Reaction to fire	Class F
Dangerous substances	No performance determined

Health hazards: It is necessary to avoid contact of the product with skin or the eyes, as well as direct inhalation during mixing of components. In case of contact with skin material must be cleaned with dry towel dip in Solvent –P, than skin must be cleaned with soap and water. If material get in contact with the eyes, it is necessary to clean with a lot of water and to ask for medical assistance. Closed space or chambers in which material is prepared or applied, must be supplied with ventilation system.

Fire: Adingpoks N and Solvent-P contains flammable solvents. They must not be used near the open flames, or to smoke during preparation and application.

Cleaning and disposal: Loose residues of Adingpoks N are cleaned with Solvent P. Old and used packaging should be disposed of in accordance with local rules and regulations for that type of waste. It is recommended to adjust prepared quantities with conditions on the construction site, as well as to use appropriate protection equipment.