

ACS EPOXY BOND®

Epoxy Based Fluid Adhesive



Description

ACS EPOXY BOND® is a two-component epoxy based solvent-free special adhesive with flowing consistency, it can be applied with a brush or just poured on the surface, it is used for adherence of old concrete to new concrete or bonding of different types of materials, protection of rebars against corrosion. **Poz No: 04.613/8-a**

Places of usage

- For corrosion protection of clean rebars before repair mortar application.
- As an adherence bridge for adherence of old concrete to new concrete.

- On horizontal reinforced concrete surfaces during installation and anchoring of rebars as an adhesive.
- Bonding of various types of construction materials such as steel, concrete, stone to each other.

Advantages

- It has excellent protection properties, provides barrier effect against corrosion.
- Provides excellent adherence between old concrete and new concrete. The tensile strength and adhesion strength values obtained after application are higher than the tensile strength of concrete.
- Can be poured as well as easily applied with a brush.
- Provides excellent adhesion even to damp surfaces.

TECHNICAL CHARACTERISTICS

ACS EPOXY BOND® Component A		Epoxy Based Resin	
ACS EPOXY BOND® Component B		Catalyst-Epoxy Based Hardener	
Color		Grey	
Solids Ratio		%100	
Mixture Density		1,54 ± 0,05 kg/liter	
Viscosity		8500 N/mm ² .s	
* Compressive Strength (TS EN 196)	1 day	52 N/mm ²	LX
	7 day	82 N/mm ²	
* Flexural Strength (TS EN 196)	1 day	22 N/mm ²	
	7 day	30 N/mm ²	
Adhesion Strength (28 days)	To concrete	3,00 N/mm ²	
	To steel	3,50 N/mm ²	
Elasticity Modulus (TS EN 13412 Pressure) 28 days		>5000 N/mm ²	
* Tensile Strength (BS 6319-7)	7 days	22 N/mm ²	
	28 days	30 N/mm ²	
Application Thickness		Min. 0,5 mm Max. 30 mm	
Temperature of soil for application		+10 °C +30 °C	
Time of use (+20°C)		60 minutes	
New Concrete applying range		Min. 5 minutes Max. 40 minutes	
Service Temperature		-30 °C + 80 °C	
Full cure time (+20°C)		7 days	

* NOTE: Normal values are based on tests performed at + 23 °C and 50% relative humidity, 4x4x16 cm mortar prism. High temperatures shorten the time, low temperatures prolong the time.

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APPLICATION PROCEDURE / SURFACE PREPARATION

The surface of reinforced concrete elements should be cleaned from oil, dust and construction waste, damaged and loose concrete parts must be cleaned. Steel surfaces should be cleaned by sand blasting. The edges of the surface formed by breaking should be cut as straight as possible, the rust in the reinforcement should be cleaned and new reinforcement should be added if necessary. If there is water leakage on the surface, it should be drained or closed with a suitable spigot. Corroded reinforcement surfaces should be cleaned with sandblasting, wire brush and brush.

MIXING

ACS EPOXY BOND® is supplied in ready-to-use kits according to mixing ratio. Before mixing make sure that the material temperatures are between +15 - + 25 °C. Empty all of Component B into Component A and make sure that Component B is fully used. The mixture should be mixed with 300 rep/ minute with a suitable mechanical mixer for at least 3 minutes until homogenous, make sure that there's no mixture left in the package.

MIXING RATIOS

ACS EPOXY BOND®	Component A	Component B
Mixture Amount	5,00 kg	2,50 kg
Mixture Density	1,54 kg / liter	

APPLICATION METHOD

For adherence of new concrete to old concrete ACS EPOXY BOND® mixture should be applied by brush or roller on old concrete surfaces. Right after that depending on ambient temperature in 5- 40 minutes start new concrete casting. For vertical anchoring use drill bit at least 6 mm larger than the rebar diameter and drill holes of appropriate depth. The holes should be cleaned with wire brush and compressed air. The prepared material must be filled into the appropriate mortar gun. The nozzle of the gun is pulled up and outwards, anchor hole should be filled with sufficient amount of ACS EPOXY BOND®. The anchor rod of the desired length and diameter must be placed by turning it into the hole. For protection of rusty reinforcement surfaces against corrosion and rust first process the reinforcement surface with sand blasting or wire brush before applying ACS EPOXY BOND® mixture with a brush or roller.

TIPS TO NOTICE

- Ambient and surface temperature should not fall below + 10°C and rise above + 30 °C during application.

- Working and reaction times of resin based systems are affected by ambient and substrate temperatures and relative humidity in the air. At low temperatures, the chemical reaction slows down, which extends the period of use, the time it can cover the surface and the working time. At the same time, the viscosity increases and the consumption increases. Higher temperatures increase the chemical reaction and the above times are shortened accordingly. For the full cure of material the ambient and surface temperature must not fall below the minimum recommended temperature.
- ACS EPOXY BOND® is supplied in ready-to-use kits. Do not add solvents to the mixture.
- Mixing must be done with suitable mechanical mixers. Do not mix manually.

CLEANING OF TOOLS

Tools and equipment used after the application can be cleaned with cellulosic thinner. Once cured ACS EPOXY BOND® can only be removed by mechanical means.

PACKAGING

7,50 kg set Component A : 5,00 kg can Component B: 2,50 kg can

STORAGE

It should be stored in unopened original package in a cool and dry environment at + 8 °C+ 25 °C temperature. In short-term storing maximum 3 palettes can be stowed on top of each other and delivery has to be according to first in first out system. In long-term storing, the palettes must not be stowed on top of each other.

SHELF LIFE

The shelf life is 12 months from the date of production under suitable storage conditions. Opened packages should be stored in appropriate storage conditions and used within one week.

SAFETY

During the application, work clothes, protective gloves, goggles and masks should be used in accordance with the Occupational Health and Safety Rules. Due to the irritating effects of uncured materials, the components should not be allowed to come into contact with the skin and the eye. In case of contact, immediately wash with plenty of water and soap. If swallowed, seek medical advice immediately. Food and beverages should not be left at the application areas. Keep out of reach of children. Refer to the Material Safety Data Sheet for further information.

□ Responsibility

The technical information given in this publication is based on the present state of our best scientific and practical knowledge. ACS A PLUS CONSTRUCTION SOLUTION YAPI ANONİM ŞİRKETİ is only responsible for the quality of the product. ACS A PLUS CONSTRUCTION SOLUTION YAPI ANONİM ŞİRKETİ is not responsible for results that may occur because the product is used other than advised and/or out of instructions regarding the place and the method of use. This technical form is valid only till a new version is implemented and nullifies the old ones (06/2019)