

PENTENS EB-60

Epoxy Bonding Adhesive

Product Data Sheet

Description

PENTENS EB-60 is a solvent-free, 2-component thixotropic bonding mortar based on a combination of epoxy and selected quartz aggregates.

Uses

As an adhesive for bonding reinforcement, adhesive mortar to:

- Concrete, stone
- Steel
- Epoxy

For structural bonding of:

- PENTENS LP-504 Low Pressure Epoxy Crack Injection System to concrete, steel and timber
- Steel plates to concrete
- Concrete elements
- Bridge segments

For anchoring of:

- Starter bars
- Wall anchors
- Fixings, etc.

For vertical and overhead filling of:

- Holes
- Dimensional inaccuracies, etc.

Advantages

- High strength.
- Can be applied to slightly damp concrete surfaces.
- Non-sag in vertical and overhead applications.
- Sets without tackiness, even in high atmospheric humidity.
- Solvent free.
- Rapid curing.
- High creep resistance under permanent load.
- High mechanical strength.
- High abrasion and shock resistance.
- Shrinkage-free curing.
- Easy to mix and apply.
- Components come in different colors so that homogeneity of mix is easy to check.

Technical & Physical Data

Consistency	Creamy paste
Color (mixed)	Light grey
Density	1.6 kg/liter (A+B)
Thixotropy (35°C)	20mm film thickness
Sag Flow (35°C)	3 - 5 mm
Shrinkage	0.04%
Glass Transition Point	62°C
Static E-modulus	12800 N/mm ²
Tensile Strength (7 days)	Approx. 12 N/mm ²
Flexural Strength (7 days)	Approx. 30 N/mm ²
Compressive Strength (7 days)	Approx. 52 N/mm ²
Pot Life (at 25°C)	60 minutes
Pull-off Bonding Strength (7 days)	Approx. 4.0 N/mm ²
Shelf Life	1 year in original unopened packaging
Storage Condition	Store in a dry, cool place
Packaging	
■ A-component	4 kg/pail
■ B-component	2 kg/pail

Important Notes

1. Minimum ambient and substrate temperature is 5°C.
2. Apply only to clean, surfaces should be free of surface water and leaks.



Instruction for Use

Substrate Preparation

The surface to be coated must be level, with steps and formwork marks not greater than 0.5mm. After cleaning, remove all dust from the surface with an industrial vacuum cleaner.

Concrete

- Clean, free from oil and grease, dry and no loose particles or laitance.
- Concrete age, depending on climate, must be minimum 3 to 6 weeks.
- Preparation: Blast-clean, scabble or grind.

Timber

- Clean, free from grease and oil, no loose particles.
- Preparation: Blast-clean or grind.

Steel

- Free from grease, oil, rust, scale and rolling "skin".
- Preparation, sandblast, beware of condensation.
- If the cleaned steel is not bonded immediately, the surface must be given one coat of PENTENS E-008 solvent free epoxy primer to protect it from further corrosion. Consumption is approximately 0.3kg/m².

Mixing

Stir the material well in the original container. Add component B to component A. Mix with an electric hand mixer for about 1 minutes to a uniform appearance at low speed (maximum 500 rpm) so that as little air as possible is entrained.

The pot life of PENTENS EB-60 begins when the resin and hardener are mixed. It is shorter at high temperatures and longer at low temperatures. The greater the quantity mixed, the shorter the pot life. To obtain longer workability at high temperatures, the mixed adhesive may be divided into portions. Another method is to chill component A and B before mixing.

Mixing ratio

PENTENS EB-60 component A:B=2:1 (parts by weight). A correct ratio must be maintained by weighing each component.

Application

If there are large blowholes on the concrete surface, these must first be filled with epoxy repair mortar. The PENTENS EB-60 must be used as a bonding bridge to ensure a good bond with the concrete substrate.

The well-mixed PENTENS EB-60 is applied with a spatula to the properly prepared substrate or PENTENS LP-504 Low Pressure Epoxy Crack Injection System or PENTENS CCFP Consolidated Carbon Fiber Plate Strengthening System to a thickness of between 0.5 to 2mm. The adhesive must be applied with great care to the concrete surface to ensure that all voids are filled and no cavities are left.

Reinforcements must be positioned within the open time of the adhesive.

As a final check, the loads are tapped with a hammer or supersonic device for cavities. To ensure that the adhesive material can be checked for curing rate and final strength, it is recommended that samples be taken at site and their compressive and/or adhesive strength measured.

NOTE: When used as adhesive for PENTENS LP-504 or PENTENS CCFP please refer to the respective product data sheets for details.

Cleaning

Tools and equipment just can be cleaned with thinner immediately after use. Cured material can only be removed mechanically. Wash hands and skin thoroughly in warm soap water.

Safety

PENTENS EB-60 can cause skin irritation (dermatitis). Wear protective clothing (gloves and safety glasses). Cover hands with barrier cream before starting work. If the material comes into contact with eyes or mucous membrane rinse thoroughly with clean warm water and seek medical assistance if irritation persists.