

MasterStrength® ER I 320

Epoxy Based, Flowable Adhesive Developed for Horizontal Applications

Material Description

MasterStrength® ER I 320 is epoxy based, two components, solvent free, moisture tolerant, flowable adhesive that can be applied by pouring or spraying, specially developed for horizontal applications used in the adherence of old concrete to new concrete.

Complies with EN 1504-4

Areas of Application

It is used for bonding existing cement based materials (screed, concrete etc) in horizontal areas to new cement based materials to be poured.

Characteristics and Benefits

- Easy to apply with brush, roller or directly pouring.
- Does not contain any solvents.
- Has a extended pot life.
- Can be applied on damp surfaces
- Provides perfect adhesion between the freshly mixed and hardened concrete

Processing Method

(A) Preparation of Substrate

The concrete surfaces must be sound, clean and dry. It shouldn't be weakened by over troweling and lack of curing. The concrete should be free of frost, curing membranes, waterproofing treatments, oil stains, laitance, friable material and dust. If there is a water leakage it must be drained or properly plugged. Steel surfaces should be cleaned from rust by sand blasting and if needed new reinforcement should be installed. The edges of the broken surfaces should be saw cut

(B) Mixing

MasterStrength® ER I 320 has two parts in pails, produced according to right mixing ratio. Material temperature should be between +15 - +25°C before mixing. Part A should be added into the Part B without any remaining material in the pail. It should be mixed with using a proper mixer (~300rpm) for polymer mixing. Mix the parts at least 3 minutes to have a homogenous mixture.

| Technical Properties | |
|--|--|
| Density of Mixture | 1,04 ± 0,04 kg/liter |
| Pot Life | (+5°C) 100 minutes (+23°C) 80 minutes (+30°C) 50 minutes |
| Covering with Freshly Mixed Concrete (+23°C) | Min. 5 minutes Max. 120 minutes |
| Application Temperature | +5°C +30°C |
| Service Temperature | -30°C + 80°C |
| Fully Cured (+23°C) | 7 days |
| Bonding Strength | >3,0 N/mm ² |
| Shear Strength (EN 12615) | ≥6,0 N/mm ² |

**Typical values are obtained from the test results in 23°C and 50% relative humidity conditions. High temperatures shorten the curing and working time, lower temperatures extends the durations.*

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(C) Processing

MasterStrength® ER 1320 should be applied to the prepared surface by using a paint brush, roller or can be sprayed with proper equipment. Freshly mixed concrete should be cast when the epoxy is still wet. Time interval for concrete casting can be changed depending on the weather conditions. The concrete should be cast in 80 - 120 minutes after priming the hardened concrete. If **MasterStrength® ER 1320** application exceeds 120 minutes, it should be applied again.

Consumption

350 - 500 g/m² depending on surface roughness.

Point to Consider

- During the application the substrate and ambient temperature should be between +5°C - +35°C.
- Resinous materials' pot life and curing times vary depending on the relative humidity, substrate and ambient temperature. Reaction gets slow in low temperatures and it causes to extension on pot life and working time. On the other hand high temperatures speed up the reaction, which results to short pot life and working time. For full curing of material, both the substrate and ambient temperature shouldn't be under allowed application temperature.
- **MasterStrength® ER 1320** is provided in ready to mix pails. Do not add any solvent etc. into the mixture during the application.
- Mixing should be made with proper mixers and do not allow mixing by hand.

Cleaning of Tools

After the application all tools should be cleaned with a proper detergent or solvent such as thinner. **MasterStrength® ER 1320** can be cleaned with only mechanical abrasion after hardening.

Packaging

11,29 kg (A + B) set;

MasterStrength® ER 1320 Part A: 3,11 kg Pail

MasterStrength® ER 1320 Part B: 8,18 kg Pail

Shelf Life

12 months after the production date under appropriate storing conditions. Opened packages have to be stored by tightly sealing the bag/cover and must be used in one week.

Storage

Store in original container in cool (+5°C - +25°C) and dry indoor conditions. In short-term storing, maximum 3 palletes 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 palletes must not be stowed on top of each other.

Health and Safety

It is dangerous to approach the application sites. During the application, a protective apparel, protective gloves, goggles and masks which comply with the Occupational Health and Safety Rules should be used. Due to the irritation effect of the uncured materials, the mixture should not come into contact with skin and eyes; in case of a contact, the affected area should be washed with plenty of water and soap; in case of swallowing, a physician should be consulted immediately. No food or beverages should be brought to the application area. The product should be stored and kept out of reach of children. For detailed information please consult the Material Safety Data Sheet.

Disclaimer

The technical information given in this publication is based on the present state of our best scientific and practical knowledge. **MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş.** is only responsible for the quality of the product **MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş.** is not

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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.

Contact

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