

The powerful injection mortar for rebar connections and cracked concrete.

Epoxy mortar FIS EM Plus

The fischer injection mortar FIS EM Plus is a high-quality epoxy mortar for top load-bearing capacity in cracked and non-cracked concrete and for seismic applications in performance categories C1 and C2. It is suitable for fixations of shear connectors for concrete layers, tall shelvings, and heavy steel constructions both inside and outside. The injection mortar is processed with the approved system components fischer threaded rod FIS A with variable anchorage depths and fischer internal threaded anchor RG M I as well as with reinforcement bars. The epoxy mortar is ideally suited for rebar connections that are installed with a large drill hole diameter and a high anchorage depth. It can also be used for diamond-drilled and water-filled drill holes, as well as for applications under fatigue cyclic loading. The approval of the injection mortar for use in glued laminated or glued solid timber of spruce (*Picea abies*), fir (*Abies alba*) or pine (*Pinus sylvestris*) allows the realisation of high-performance and appealing wood-wood, wood-concrete and wood-steel connections.

Your advantages / Product description

Advantages

- The ETA assessment guarantees a service life of 100 years. The expert report of IEA Stuttgart even confirms a working life up to 120 years and thus underlines the reliability and durability of the FIS EM Plus.

- The optimised formulation of the epoxy resin mortar FIS EM Plus leads to improved load values in cracked and non-cracked concrete.
- The mortar can be used for rebar connections from diameter 8 to 40, including seismic applications.
- With the threaded rod FIS A, the loads to be applied can be designed variably by selecting the anchorage depth. The mortar is approved for diamond drilled and water-filled drillholes as well as seismic applications and thus offers safety under extreme conditions.
- For practical use on the building site, FIS EM Plus can be processed at low temperatures down to -5°C.
- The approval of the injection mortar for use in glued laminated or glued solid timber of spruce (*Picea abies*), fir (*Abies alba*) or pine (*Pinus sylvestris*) allows the realisation of high-performance and appealing wood-wood, wood-concrete and wood-steel connections.
- The standard threaded rod FIS A can be set for light dynamic loads with the epoxy injection system FIS EM Plus in the sizes M12 and M16 in steel grade 8.8 or in the sizes M12, M16, M20 and M24 in stainless steel R and the fischer filling set.

Application and approval

Applications

- Post-installed rebar connections
- Joints for concrete layers
- Rim beam anchorings
- Seismic applications
- Anchorings in diamond-drilled or in waterfilled drill holes

- Heavy steel constructions
- Silo installations
- Tall shelving
- Sound barriers
- Temporary or removable fixings (with internal threaded anchor RG M I)
- Anchorings in sealing surfaces according to WRL (Water Ressources Law)
- Anchorings in wood

Building materials

Approved for anchorings in:

- Concrete C20/25 to C50/60, cracked and non-cracked
- Sealing surfaces according WRL (Water Ressources Law)
- Glued laminated or glued solid timber of spruce (*Picea abies*), fir (*Abies alba*) or pine (*Pinus sylvestris*)

Suitable for:

- Natural stone with dense structure
You can find detailed information on building materials in the approval document.

Approval

- ETA-23/0842
- ETA-19/0657

- ETA-22/0001
- ETA-17/0979
- ETA-17/1056
- DoP No. 0341
- DoP No. 0367
- DoP No. 0366
- 24-045-2(2)
- ESR-1990
- Z-74.8-199
- Z-74.8-211
- Z-9.1-914
- Report No MRF 19 26082687/C
- EPD-DBC-FIW-20230530-CBA1-EN

Assembly instruction

Functionality

- The epoxy mortar FIS EM Plus combined with the FIS A anchor rod, is suitable for pre-positioned and push-through installation and with the internal threaded anchor RG M I for pre-positioned installation.
- Resin and hardener are stored in two separate chambers and are not mixed and activated until extrusion through the static mixer.
- The mortar is injected bubble-free from the drill hole base.

- The mortar bonds the entire surface of the anchor with the drill hole wall and seals off the drill hole.
- The anchor is set manually by lightly rotating it until it reaches the drill hole base.
- During push-through installation, the annular gap between the anchor rod and attachment is filled with FIS EM Plus.