



1 - DESCRIPTION

Akfix C920 is a high performance styrene free epoxy acrylate injection mortar for solid and hollow supports having a short cure time. It is suitable for use in concrete, stone, perforated bricks and cavity blocks in a wide range of applications.

2 - PROPERTIES

- Suitable for rods and reinforcing bars in plain and hollow structures.
- Styrene free and very low odour
- Easy to extrude and to inject.
- Thixotropic, can be applied in vertical and horizontal direction.

3 - APPLICATIONS

- Heavy load-carrying attachments in solid stone and concrete.
- Repair mortar or adhesive mortar for concrete components.
- Attachment of anchor rods, threaded collars, reinforcement bars, profiles etc.
- Medium-load applications in hollow-bricks.
- · Fixing of;
 - Wooden constructions
 - Metal constructions
 - Metal profiles
 - Sanitary fittings
 - Pipe connections
 - Projecting roofs
 - Facades
 - Cable trays
 - Railings
 - Staircases
 - Gates
 - Window elements

4 - INSTRUCTIONS

CARTRIDGE USE

- Unscrew the cap of the cartridge
- Screw the mixing nozzle onto cartridge
- Insert the cartridge in the gun
- Remove the mixture until the two components have a homogeneous light grey colour in the nozzle (Avoid using the first 10 ml)

APPLICATION

- Choose a drill of suitable dimensions depending on the rod to be ancored
- Remove the water and dirt (dust and loose material) with a circular brush and a blower or with air pressure

01 / 2015Rev.05 Page 1





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- The items to be fastaned must be clean
- In case the anchor is set in a hollow brick, introduce the sleeve of suitable dimensions (for brick: sleeve 16 mm x 85 mm, and for concrete block: sleeve 16 mm x 130 mm)
- In the case of a solid base material, injest the product from the base of the hole until 2/3 full
- Insert the element to be fastaned rotating, if necessary, keep the position with a suitable device
- Unscrew the mixing nozzle and replace the cap

5- PACKAGING

| Product | Volume | Package |
|---------|---------------|---------|
| C920 | 345ml / 400ml | 12 |

6- STOROGE AND SHELF LIFE

Store the product in a ventilated place away from direct exposure to sunlight. Keep between +5°C and +25°C. Once the package is opened, it should be used in a month. Shelf life of the unopened original packaging is one year from manufacturing date.

7-SAFETY

• Before injection, verify the expiry date of the product, the support resistance and the ambient temperature. Settings in any subsequent adjustment are only possible during working time.

8- TECHNICAL PROPERTIES

PHYSICAL PROPERTIES

| Basis | : Epoxy Acrylate Resin |
|---------|---|
| Color | : Light Grey (Component A:beige; Comp. B:black) |
| Density | : 1,80 kg/l at 20 °C |

WORKING AND HARDENING TIMES

| Base Material Temperature (°C) | 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 |
|--------------------------------|-----|-----|-------|-----|-----|-----|-----|-----|
| Working Time | 45' | 25' | 15' | 10' | 8′ | 5′ | 4' | 2′ |
| Loading Time | 3h | 2h | 1h30' | 1h | 45' | 30' | 20' | 15' |

NUMBER OF ANCHORS BY DIAMETER

| ANCHOR | |
|---------------|--------|
| Diameter (mm) | 345 ml |
| 8 | 80/90 |
| 10 | 45/50 |
| 12 | 26/30 |
| 16 | 14/16 |
| 20 | 6/7 |

01 / 2015Rev.05 Page 2





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PERFORMANCE DATA FOR RODS INTO CONCRETE

| Anchor | | | | | | Resistance | Admissik | ole Loads |
|---------------------|--------------------------------------|------------------------------------|---|--|---------------------------------------|---|--------------------|--------------------|
| Rod Class 8.8 | Drill diamete r d ₀ | Embedment depth h _{ef} | Standart edge distance C _{cr} | Standart anchor distance S _{cr} | Torque moment T _{inst} | Characteristic resistance N _{rk} | Concrete C20/25 | Concrete C20/25 |
| | mm | mm | mm | mm | N.m | Tensile (kN) | Tensile (kN) | Shear (kN) |
| M8 | 10 | 80 | 80 | 160 | 10 | 19,9 | 6,6 | 8,1 |
| M10 | 12 | 90 | 90 | 180 | 20 | 34,8 | 11,6 | 12,9 |
| M12 | 14 | 110 | 110 | 220 | 40 | 41,7 | 13,9 | 18,7 |
| M16 | 18 | 125 | 125 | 250 | 80 | 67,5 | 22,5 | 34,9 |
| M20 | 24 | 170 | 170 | 340 | 100 | 114,8 | 38,3 | 54,4 |

Safety factor for tension load is 3

MECHANICAL CHARACTERISTICS

| | Units | Standart | Avarage Value |
|-----------------------------|-------------------|-----------|---------------|
| Compressive Strength | N/mm ² | ASTM D695 | 61 |
| Compressive Modulus | N/mm ² | ASTM D695 | 7400 |

01 / 2015Rev.05 Page 3