

## Injection system MULTIFIX USF Winter



### Included in delivery

- 1 mortar cartridge
- 2 mixing nozzles

### Cross references

Anchor rod  
Mesh sleeve  
Cleaning brush  
Blow-out pump  
Applicator gun  
Hammer drill SDS plus®  
Cordless hammer drill ABH

### Product video



### Installation process



### Application examples

- > Designed for medium-duty applications in concrete and masonry and for low temperatures up to -20 °C, including facades, awnings, storage racks, railings, sanitary equipment, pipe supports and cable management systems
- > Suitable for post-installed rebar applications in renovation, extension and retrofit projects

### Application range

Substrates:

- > Cracked and non-cracked concrete
- > Masonry

Fastening elements:

- > Threaded rods (galvanized and stainless steel)
- > Post-Installed rebars
- > Internal threaded anchor rods

### Properties

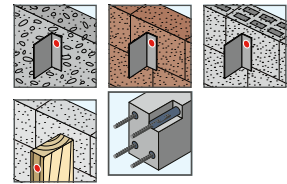
- > High-performance styrene-free vinylester resin
- > For medium-duty applications
- > Seismic action and fire exposure assessment
- > Can be used in wet concrete and water-filled drill holes
- > The cartridge can be used again until the end of its shelf life by replacing the static mixer or by closing it again with the original cap
- > Cartridge temperature may conform to the low outside temperature
- > Suitable curing times at low temperatures
- > 50 years working life assessment

### Notice

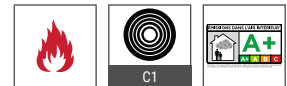
Please observe the corresponding approvals during planning and processing.

The storage temperature must not permanently exceed 25 °C!  
Please store upright!

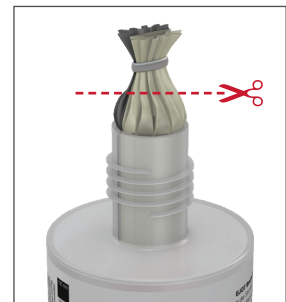
### Applications



### Technical specifications

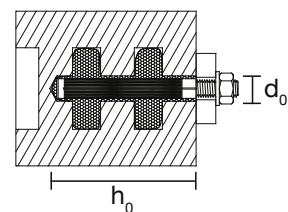
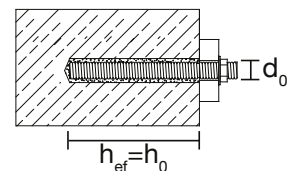


### Certifications



### Note:

Plastic bag must be cut open before processing!



| Installation parameters |                        |                                                    |                                      |
|-------------------------|------------------------|----------------------------------------------------|--------------------------------------|
| Anchor rod              | d <sub>0</sub><br>[mm] | h <sub>ef</sub> = h <sub>0</sub><br>min – max [mm] | T <sub>inst</sub> concrete<br>≤ [Nm] |
| M8                      | 10                     | 60 – 160                                           | 10                                   |
| M10                     | 12                     | 60 – 200                                           | 20                                   |
| M12                     | 14                     | 70 – 240                                           | 40                                   |
| M16                     | 18                     | 80 – 320                                           | 80                                   |
| M20                     | 24                     | 90 – 400                                           | 120                                  |
| M24                     | 28                     | 96 – 480                                           | 160                                  |
| M27                     | 32                     | 108 – 540                                          | 180                                  |
| M30                     | 35                     | 120 – 600                                          | 200                                  |

| Installation parameters      |                      |                                  |                                  |
|------------------------------|----------------------|----------------------------------|----------------------------------|
| Temperature in base material | Maximum working time | Curing time in dry base material | Curing time in wet base material |
| -20 °C*                      | 1h 15 min            | 24 h                             | 48 h                             |
| ≥ -15 °C                     | 55 min               | 16 h                             | 32 h                             |
| ≥ -10 °C                     | 35 min               | 10 h                             | 20 h                             |
| ≥ -5 °C                      | 20 min               | 5 h                              | 10 h                             |
| ≥ 0 °C                       | 10 min               | 2 h 30 min                       | 5 h                              |
| ≥ +5 °C                      | 6 min                | 1 h 20 min                       | 2 h 40 min                       |
| 10 °C                        | 6 min                | 1 h                              | 2 h                              |

\*Min. cartridge temperature -20 °C

| Consumption in solid building materials (300 ml) |                        |                        |                 |
|--------------------------------------------------|------------------------|------------------------|-----------------|
| Anchor rod                                       | d <sub>0</sub><br>[mm] | h <sub>0</sub><br>[mm] | Number of fills |
| M8x130                                           | 10                     | 80                     | 44              |
| M10x130                                          | 12                     | 90                     | 27              |
| M10x170                                          | 12                     | 130                    | 19              |
| M12x160                                          | 14                     | 110                    | 16              |
| M16x190                                          | 18                     | 125                    | 9               |

| Consumption in perforated building materials |            |                        |                        |                 |
|----------------------------------------------|------------|------------------------|------------------------|-----------------|
| Mesh sleeve                                  | Anchor rod | d <sub>0</sub><br>[mm] | h <sub>0</sub><br>[mm] | Number of fills |
| USF 12x80                                    | M8         | 12                     | 85                     | 17              |
| USF 16x85                                    | M8/M10     | 16                     | 90                     | 11              |
| USF 16x130                                   | M8/M10     | 16                     | 135                    | 6               |
| USF 20x85                                    | M12/M16    | 20                     | 90                     | 6               |
| USF 20x130                                   | M12/M16    | 20                     | 135                    | 4               |
| USF 20x200                                   | M12/M16    | 20                     | 205                    | 2               |

| Order description                                                                                | Content<br>[ml] | PU<br>[pieces] | Price/1<br>[EUR] | Article number | EAN           |
|--------------------------------------------------------------------------------------------------|-----------------|----------------|------------------|----------------|---------------|
| Mortar cartridge USF winter 300 ml                                                               | 300             | 1              |                  | 9571000300     | 4061245010540 |
| Mixer extension 500 mm                                                                           | –               | 1              |                  | 8682900004     | 4061245081106 |
| Mixing nozzle USF                                                                                | –               | 1              |                  | 9570040141     | 4061245061900 |
| Ordering information: USF Winter 300 ml incl. 2 mixing nozzles included in the scope of delivery |                 |                |                  |                |               |