

## Rebar bolt Ø20/M20/Rock support bolt w/spiral Ø40x450



Rock support bolt. The bolt is equipped with a spiral for safe and controlled mixing of the polyester. The bolt is suitable both for immediate work safety support and permanent support in tunnels. The bolt is supplied with a large bevel at the threaded end. The mixing spiral is clamped at both ends.

### Stock programme:

M20x1500	M20x3000	M20x6000
M20x2000	M20x4000	
M20x2400	M20x5000	

### Technical information:

Bolt: Rebar bolt Ø20 Mechanical properties corresponding to B500NC in compliance with NS 3576-3:2012 or equivalent

Thread length: 150 mm (thread cold rolled)

Mixing spiral: Exterior diameter 40 mm, length 450 mm.

Weight: 2.47 kg/m

Specifications: Ref. drawing Bolt ref. drawing PTC-117 Spiral ref. drawing PTC-029-1

Metric threads

Specified mechanical properties apply to original material

Dimensions:	Tension area mm <sup>2</sup> , A <sub>s</sub> Thread-stem	Yield, ReH N/mm <sup>2</sup> Min:	Tensile, Rm N/mm <sup>2</sup> f <sub>u</sub>	Ductility, AGT % min
M20x2.5	245-314	500	600	8

Homogenous material is used in the production of rebar bolts. The following calculations are based on that.

Safe working load threaded section  $f_{sd} = ReH / \gamma_{M2} \times A_s \times 10^{-3} = 500 / 1.15 \times 245 \times 10^{-3} = 106 \text{ kN}$

Safe working load rebar rod section  $f_{sd} = ReH / \gamma_{M2} \times A_s \times 10^{-3} = 500 / 1.15 \times 314 \times 10^{-3} = 137 \text{ kN}$

Nuts: M20: +2/10, h=20 complying with ISO 4032-8, Pc-Coat

### Tightening torque:

For tension of 50 kN: 180-200 Nm

### Corrosion protection/Pc-Coat

Hot-dip galvanization is carried out in compliance with NS-EN-ISO 1461 and epoxy powder coating in compliance with NS-EN 13438. With regard to coating thickness and further information, please see Document Q/PTC-T19A – Specification for Pc-Coat – SVV/JBV.

Please also refer to the Pc-Coat Product Data Sheet and accompanying FDV documentation.

### Suitable polyester cartridges:

Ø40x480 or Ø38x520

See separate product data sheet for use of polyester

### Borehole:

Recommended borehole: Ø45-Ø50mm when using polyester.

### Accessories:

Spherical bearing plate Ø150, Ø190, triangle plate 400x500, angle washers and nuts. All in Pc-Coat.