

## Rebar bolt Ø20/M20/Rock support bolt



Rock support bolt. The end of the bolt is obliquely cut for improved polyester mixing. Can also be used fully embedded in polyester or cementitious mortar. The bolt is suitable both as immediate work safety support or for permanent support in tunnels and caverns. . The bolt is supplied with a large bevel at the threaded end.

### Stock programme:

M20x1500	M20x4000
M20x2000	M20x5000
M20x2400	M20x6000
M20x3000	

### 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)

Bolt obliquely cut at 45°

Weight: 2.47 kg/m

Specifications: Ref. drawing PTC-117

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 of 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:

Ø23x400, Ø28x370

See separate product data sheet for use of polyester

### Borehole:

Recommended borehole: 27 mm-34 mm when using polyester.

### Accessories:

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