

## Fully threaded bolt M20/Rock support bolt with large spiral



Rock support bolt. The bolt is equipped with a large spiral for safe and controlled mixing of the polyester. The bolt is supplied with a large bevel at one end.

When used as an anchored bolt, it is extremely malleable and has significantly better tensile properties than rebar bolts. Test reports are available comparing the bolts with corresponding rebar bolts.

Not generally approved by the Norwegian Public Roads Administration. Approval must be sought for each individual project.

### Stock programme:

M20x800	M20x2400
M20x1500	M20x3000
M20x2000	M20x4000

### Technical information:

Fully threaded bolt, steel 8.8C, thread cold rolled.

Weight: 2.1 kg/m

Specifications:

Manufacturing and mechanical characteristics in accordance with DIN 976 and ISO 898-1:2013

Dimensions:	Tension area mm <sup>2</sup> , A <sub>s</sub>	Yield, Rp0.2 N/mm <sup>2</sup> Min.	Tensile, Rm N/mm <sup>2</sup> f <sub>u</sub>	Extension % A <sub>5</sub>	Fracture toughness -20°C Min
M20x2.5	245	640	800-1000	12	27J

Working load threaded bolt  $f_{sd} = f_u \times 0.9 / \gamma_{M2} \times A_s \times 10^{-3} = 800 \times 0.9 / 1.15 \times 245 \times 10^{-3} = 153 \text{ kN}$

Mixing spiral: Exterior diameter 40 mm, length 450 mm. Ref. drawings: PTC-029

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

### 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:

Ø38x520

See separate product data sheet for use of polyester

### Borehole:

Recommended borehole: Ø45-Ø50

### Accessories:

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