

Fully threaded bolt M20/Rock support bolt with small spiral



Rock support bolt. The bolt is equipped with a spiral for safe and controlled mixing of the polyester. Works perfectly well without the spiral (see recommended borehole). The bolt is supplied with a large bevel at one end. When end-anchored only, the bolt is extremely ductile and has significantly better elongation 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:

Bolt: 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 ² , A _s	Yield, Rp0.2 N/mm ² Min.	Tensile, Rm N/mm ² f _u	Extension % A ₅	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 27.5 mm, length 300 mm. Ref. drawings: PTC-029-5

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:

Ø23x250

Ø28x370

See separate product data sheet for use of polyester

Borehole:

Recommended borehole: Without mixing spiral: 27 mm-28 mm

With mixing spiral: 30 mm-34 mm

Accessories:

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