

Pc-Bolt M27/15 Combination Bolt/Rock Support



Pc-Bolt M27/15 is a combination bolt for rock support. The bolt is used with an expansion shell for immediate work safety support. The bolt is subsequently grouted for permanent anchoring. Supplied with pre assembled expansion shell. The bolt is approved by both the Norwegian Public Roads Administration and Norwegian National Rail Administration for use as combination bolt/rock support bolt in tunnels.

Stock programme: R27/15 L=1500 / 2400 / 3000 / 4000 / 5000 / 6000 mm

Technical information: Heat treated alloy steel 41Cr4 / 40Cr acc. EN ISO 683-2 / GB/T 3077

Thread length: 2xM27x150mm (threads are cold rolled)

| Dimensions: | Tension area*, A _s | Nom Yield strength ReH | Nom Tensile strength Rm | Elongation Agt | Weight |
|-------------|-------------------------------|---------------------------|----------------------------|-------------------|----------|
| R27/15 | ~314 mm ² | 500 N/mm ² | 600 N/mm ² | Min 8% | 2,5 kg/m |

* Subject to variation due to tolerances from manuf. process. Not for calculation.

Minimum load capacity:

| | | |
|-----------------|---------------|--------------------------|
| End anchored: | Yield: 157 kN | Tensile strength: 186 kN |
| Fully embedded: | Yield: 157 kN | Tensile strength: 186 kN |

Recommended torque hexagonal nut against half ball: 200-300 Nm. This normally generates 40-60 kN of bolt tension, with the possibility of deviant individual values due to variations in friction properties.

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.

Grouting: Typical water/cement-ratio is 0,3-0,4. For more detailed information, please see own brochure "Grout recommendations" on www.pretec.no.

Recommended borehole:

Borehole: Ø45- Ø48 mm Drill hole length: Bolt length + 150 mm

Accessories:

Spherical plate with hole for evacuation of air. Expansion shell M27x45/45-48 zinc plated.
Pc-Packer to be used in the event water ingress to the borehole.