

Friction Bolting Technologies

Immediate Roof Support

Overview

Friction bolts are much more cost effective compared to inflatable bolt technologies which require the investment in additional complex pumps and equipment. This is a very cost-effective technology for short-term applications. This type of bolt provides immediate support to the rock.

Available in sizes $\varnothing 33$, $\varnothing 39$ and $\varnothing 48$.

- Fast to install using the hammer from the drill for insertion
- Immediate support to the roof using the interference fit concept
- Acts as an independent or secondary bolting roof support system
- Various lengths are available to meet mine requirements

	Minimum		Typical	
Yield Strength	415 MPa	80 kN	510 MPa	100 kN
Ultimate Tensile Strength of Tube	510 MPa	100 kN	610 MPa	120 kN
Friction Bolt Diameter			$\varnothing 33$ mm x 2.3 mm	
Hole Diameter Range	30 mm min. / 32mm max.			
Weight per Metre			1.53 kg	

	Minimum		Typical	
Yield Strength	415 MPa	90 kN	510 MPa	115 kN
Ultimate Tensile Strength of Tube	510 MPa	115 kN	600 MPa	135 kN
Friction Bolt Diameter			$\varnothing 39$ mm x 2.3 mm	
Hole Diameter Range	35 mm min. / 38mm max.			
Weight per Metre			1.77 kg	

	Minimum		Typical	
Yield Strength	345 MPa	120 kN	445 MPa	160 kN
Ultimate Tensile Strength of Tube	460 MPa	165 kN	510 MPa	180 kN
Friction Bolt Diameter			$\varnothing 48$ mm x 3.2 mm	
Hole Diameter Range	44 mm min. / 46.5mm max.			
Weight per Metre			2.86 kg	

The stiff bolt technology is a unique technology combining capsuled cements and friction bolts increasing bolting performance and longevity in the application. Ask Nordic Geo Support for more information about this revolutionary design.