

MINING / CONSTRUCTION

POWERTHREAD FIREP® FRP

ROCKBOLT SYSTEM

DESCRIPTION

FiReP® Powerthread FRP is a comprehensive rock bolting system with various components (e.g. plastic nut, GRP nut, steel nut, plastic plate, GRP plate, couplings, adapter and injection connection) is available. Due to its continuous thread the bolt can be trimmed if needed. The bolt has a high ultimate load and due to its profile, offers a maximum bond strength with all grouting materials. The cuttability protects machinery and equipment and prevents damage to machinery while drifting and enlarging tunnels.

The FiReP® Powerthread FRP Rockbolt is available in solid and hollow bolts. The setting of the solid rods can be carried out with mortar or resin capsules, while the setting of the hollow rods can be carried out with injection.

The FiReP® Powerthread bolt has a high corrosion resistance and is well suited for permanent support. The high flexibility is well suited for application without couplings in confined locations. Due to its high tensile strength, the bolt has a high and immediate load bearing capacity if applied with fast setting resin capsules. The FiReP® Powerthread low weight facilitates handling.

USES

The FiReP® Powerthread FRP Rockbolt was developed for strata support in mining and tunnelling, as well as for slope and face stabilization.

ADVANTAGES

- High tensile strength
- High corrosion resistance
- Low weight



TECHNICAL DATA

Unit		Tubular Bolt		Solid Bolt						
		J64-25	J64-28	K60-20	K60-22	K60-25	K60-27	K60-30	K60-32	K60-38
Outer diameter (mm)		25/12	28/12	20	22	25	27	30	32	38
Tensile stress area (mm ²)		250	357	200	250	346	400	510	580	830
Ultimate load (kN)		250	350	200	250	350	400	490	560	750
Breaking load thread (kN)	Steel Nut	150	200	80	100	180	200	200	320	–
	FRP Nut	70	80	60	60	70	80	80	80	–
	Power Nut	150	180	80	100	180	180	–	–	–
Ultimate strength (N/mm ²)		1,000	1,000	1,000	1,000	1,000	1,000	960	960	900
Torsion resistance (Nm)		100	110	60	70	120	130	180	230	–
Shear resistance (N/mm ²)		400	400	460	460	460	460	430	430	400
Tensile E-Modulus (N/mm ²)		50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Strain at failure (%)		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Weight (g/m)		630	880	560	690	900	1,040	1,330	1,500	2,100

APPROVALS AND CERTIFICATES



an ISO 9001:2015
Quality Management System Certified Company.

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ADDITIONAL DOCUMENTATION

Started more than 135 years ago, Minova is a global manufacturer and supplier of chemical and mechanical earth control products and support equipment. With manufacturing plants on five continents and operations in more than 25 countries, Minova is an industry-leading provider of ground support solutions for the underground mining, construction and energy industries.

If further information is required consult Minova Americas website: www.minovaglobal.com.

- Steel Bolts, Plates, Other Steel Articles Safety Data Sheet (SDS)
- Minova Guide to Rock Bolting
- Minova Chemicals, Polymers & Steel Application Guide

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