

Lokset[®] Resin Bolting

Background

The history of the development of resin anchors is well documented and the use of resin capsules is now a well-accepted practice in mine roof control. Resin Bolting is now becoming more widely adopted throughout Australia's metalliferous mines.

Modern high productivity mining is striving for almost uninterrupted and cost effective production. Consequently the move towards a "single-pass" bolting system is considered to be vital for the efficient operation of many mines. In parallel, the demands on the capsule performance increases. Set time, strength gain, consistency and reliability are amongst the key characteristics being measured as vital. This has been complemented by a greater awareness of rock mechanics parameters and the "customised" product is more and more designed as part of the overall system for the mine support plan.

Minova has manufactured Lokset resin capsules since the late 1960's and has been a leading supplier and innovator in this field over the past three decades. It numbers over 50 variants in its worldwide range of resin capsules. All are founded on a sound technology base but also a creative response to increasing demands.

Advantages

- Full column bond or point anchor as required.
- Able to take load immediately due to extremely rapid strength gain.



- Protects bolt from corrosion, resin bond unaffected by aggressive ground water (eg acidic, alkaline, saline). Support is permanent.
- Single pass system, no post grouting required, no mixing or pumping equipment needed.
- Bolt can usually be tensioned.
- High modulus and strength – stiff system when fully encapsulated.
- Rapid insertion, easy and quick to use.
- Superior confinement and clamping action on strata.
- Vibration resistance, anchors are unaffected by vibrations even from close proximity blasting.
- No expansion stresses –used in weak strata.
- Assured product performance through manufacture under strict quality control.

Description

The Lokset resin capsule consists of a reinforced, polyester resin mastic in one compartment and an organic peroxide catalyst separated by a physical barrier in the other. The rotation of the bolt during installation ruptures the capsule, shreds the skin and mixes the two components causing a chemical

reaction and transforming the resin mastic into a solid anchor.

Insertion Methods

Various methods of inserting the resin capsules in the bolt hole are available:

- Tamrock Robolter – pneumatic
- Atlas Copco Boltec – pneumatic
- Jumbo boom via basket-hand
- Jumbo boom via pneumatic installer
- Jumbo boom via mechanical installer
- Via a sleeve attached to a Jumbolt
- QUICK-CHEM installation system

Customers in the Australian metalliferous sector

- Mt Isa Mines
- Lead Mine
- George Fisher Mine
- Ridgeway Project – Cadia
- Stawell
- Darlot
- Silver Swan
- Telfer
- Cannington
- Osbourne
- North Parkes
- Kundana

Technical Support

Minova Australia, together with your local distributor offer a complete technical and field

support service.

Additional Information

For further information see 'Lokset Resin Capsule' and 'TOOSPEEDIE' Product Data Sheets.

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