

## SOFT ROCK MINING / HARD ROCK MINING / TUNNELLING

# LOKSET® X2

## OPTIMISED DOUBLE RESIN CAPSULES

### DESCRIPTION

Lokset® X2 resin capsules have been developed to enable full encapsulated mechanised resin bolting, utilising the Quick-Chem™ resin capsule insertion system. The Lokset® X2 system incorporates two resin capsules that are joined and folded in half for packaging.

The Lokset resin capsule consists of a reinforced, thixotropic 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.

Available in either single speed or two speed (TOOSPEEDIE®) configurations.

### APPLICATION AND USES

The Lokset resin capsule is used primarily as an anchoring medium for rockbolts. The Lokset X2 resin capsules are typically installed using development Jumbos in underground headings with an excavation height of 4–6 m, where hand insertion is not safe or practical.

### ADVANTAGES

- Rapid insertion, easy and quick to use
- Higher compressive strength, strong, rapid and consistent anchorage
- Higher modulus
- Protects bolt from corrosion, can be used in wet or underwater conditions
- Unaffected by vibration



- No expansion stresses and can be used in weak strata
- Full encapsulation without pre-tensioning using slow set single speed capsules
- Point anchor installation with fast set single speed capsule
- Full encapsulation with pre-tensioning when using combination Toospeedie capsules
- Unique design of capsule configuration enabling extremely effective mixing of resin mastic and catalyst compartments
- Enables efficient use of the Quick-Chem installation system.
- Eliminates the requirement to use 2 separate capsules
- No capsule connectors or joiners required.
- Quick and easy to handle
- Supplied folded at join in capsule carton
- Impossible for join to separate
- Reduces box lengths for ease of handling
- Manufactured in Australia

**TECHNICAL DATA**

Lokset Resin Anchor range and total length:

Description	Total length
<sup>1</sup> Classic 800/30 Medium X2 with Quick-Chem Cap	1600mm
<sup>1</sup> Classic 900/30 Medium X2 with Quick-Chem Cap	1800mm
<sup>1</sup> Classic 1100/30 Medium X2 with Quick-Chem Cap	2200mm
<sup>1</sup> Classic 1200/30 Medium X2 with Quick-Chem Cap	2400mm
<sup>2</sup> TOOSPEEDIE 1050/26 Medium/Slow X2 with Quick-Chem Cap	2100mm
<sup>2</sup> TOOSPEEDIE 1200/26 Medium/Slow X2 with Quick-Chem Cap	2400mm
<sup>2</sup> TOOSPEEDIE 1500/26 Medium/Slow X2 with Quick-Chem Cap	3000mm

<sup>1</sup> Classic, single speed resin capsule

<sup>2</sup> Toospeedie, two speed resin capsule

**QUICK-CHEM™ INSERTION SYSTEM**

The Quick-Chem system is used in conjunction with Lokset resin capsules to ensure quick, safe, efficient and remote installation of resin capsules into boreholes for rock bolting.

The Quick-Chem system consists of a specially designed cap suitable for attaching to 25 mm nominal diameter, 26 mm diameter, 30 mm diameter and 36 mm diameter Lokset resin capsules.



In addition, the insertion tube consists of a threaded R32 adaptor sleeve (that locates in the drill coupling of the Jumbo drifter in seconds) and is secured to a 3-meter length of clear, high strength, flexible plastic tubing.

**APPLICATION METHOD**

Individual Quick-Chem caps are supplied in the boxes with the resin capsules. One cap is fitted to the fast set end of each X2 capsule unit before being inserted into a Quick-Chem™ tube for installation into the borehole.

A Quick-Chem™ insertion tube is attached to the Jumbo drifter and used to safely insert resin capsules undamaged to the back of each borehole.

**PACKAGING AND TRANSPORTATION**

Quick-Chem caps and insertion tubes are available to suit 25 mm, 26 mm, 30 mm and 36 mm diameter resin capsules.

- 25 mm, 26 mm and 30 mm Quick-Chem caps are designed for use in 33 mm to 35 mm diameter boreholes.
- 36 mm Quick-Chem caps are designed for use in 45 mm diameter boreholes.

**STORAGE CONDITIONS**

Store in a cool, dry place away from direct sunlight. Do not double stack pallets. When using cool room storage, the resin capsules should be allowed time to attain ambient temperature before use otherwise SPIN and HOLD TIMES will be extended.

**QUALITY**

The superior quality of the Lokset resin capsule is assured through a four-part quality control program:

1. Raw Material Testing
2. In-process quality control testing
4. Quality system management to ISO 9001

Testing levels and specifications for each of the above programs have been established statistically, based on actual historical data to ensure the customer receives a uniform quality product which will perform dependably under field conditions.

## HEALTH AND SAFETY

For further information see the Lokset Safety data sheet on [www.minovaglobal.com/apac](http://www.minovaglobal.com/apac)

## TECHNICAL SUPPORT

We provide technical advisory service by a team of specialists in the field. The service includes on site assistance and advice on evaluation trials and laboratory work.

## MANUFACTURER

### Minova Australia Pty Ltd

An ISO 9001:2015 Quality Management Certified Company



FS 603747

## ADDITIONAL INFORMATION

Minova Australia offers a comprehensive range of products, all of which have been developed after extensive research and testing on a global scale via our international network of operations. These products include:

- Resin anchor systems
- High yield grouts and foams
- Monolithic chock systems
- High performance cable bolt grouts
- Polyurethane resin systems
- Sprayable coatings for ventilation control
- Water stop grouts
- Ventilation formwork systems including: Meshblock and Tecmesh
- Grout mixers and batchers both air and hydraulically operated
- Contract Installations
- Flexible membranes for strata support and waterproofing applications

## CUSTOMER SERVICE

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## LEARN MORE

Click on the website links to learn more about Minova and their solutions.

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