

MINING / CONSTRUCTION

Lokset™ TOOSPEEDIE™ Resin Capsules

TWO SPEED POLYESTER RESIN ANCHORING SYSTEM

DESCRIPTION

The Lokset™ TOOSPEEDIE™ resin capsules consist of fast and slow speed polyester resin mastics in one continuous package. Each package is divided lengthwise into two compartments. One compartment contains the resin mastics and the other compartment contains a catalyst. Rotation of the bolt during installation ruptures the capsule, shreds the skin and mixes the two components, making the resin set.

The superior quality of the resin bolt support system is assured through a four-part quality control program:

- Raw material testing
- In-process control tests
- Finished product acceptance testing
- Quality System Management to ISO 9002 requirements

APPLICATION AND USE

The Lokset™ TOOSPEEDIE™ resin capsule is used as an anchoring medium for rock bolts and long tendons to provide primary roof support in mines and tunnels.

It can be used with hydraulic and pneumatic type bolters.



ADVANTAGES

Fast and slow speeds, each colour coded, in one capsule provide the following advantages:

- Reduced handling and wastage
- Rapid insertion
- Helps ensure fast resin is inserted first
- Guarantees both fast and slow set resin is installed
- No plastic or cardboard joiners required
- Allows roof bolt to be tensioned immediately after installation

A specially formulated resin mastic and catalyst paste to give:

- High compressive strength
- High pull out strengths
- Shorter installation times

TECHNICAL DATA

**TYPICAL INSERTION PROPERTIES
AT 20°C**

Set Time Combination 20°C	Mixing Time
15 sec	Spin-to-stall
5-10 min	Spin-to-stall

Lokset™ TOOSPEEDIE™ resin capsules are for any temperatures up to 35 °C.

For further information on capsule types, size and speed consult one of our representatives.

APPLICATION METHOD

(Please refer to one of our representatives to assist with determining the correct bolt, hole and resin capsule parameters).

1. Insert the necessary resin capsules into the hole.
2. Push the bolt up the hole to at least 300mm from the collar. (Rotation of the bolt during this step is optional)
3. Rotary drills: rotate the bolt rapidly (250-750rpm) for the specified mixing time, while pushing the bolt home. Percussion drills: rotate the bolt 40-60 revolutions.
4. Hold for the required time (note effect of temperature on set times).
5. Do not rotate again as damage to partially gelled resin may result. The period of strength development following set will vary, depending on set time and product temperature. The bolt may be tensioned after the required hold time.
6. Resin bolts should be installed as soon as possible in a newly exposed roof.

For optimum results, it is important to ensure careful control of:

1. Hole diameter i.e. bit size.
2. Hole length, i.e. length of drill rod.
3. Use of sufficient resin to anchor the desired length of the bolt to the surrounding strata.
4. A minimum of 500mm of resin bond is recommended to ensure long-term anchor strength of end-anchored bolts.

Modern mechanized mining equipment is capable of installing resin-grouted bolts safely, reliably and efficiently. Please consult one of our Representatives to assist when considering strata-control methods to use with mechanized mining.

SAFETY INSTRUCTIONS AND LIMITATIONS

The annular gap between bolt and hole diameter must be 6-8 mm, e.g.

- Bolt diameter : 20mm
- Hole diameter : 26mm
- Annular gap : 6mm

All bolting parameters will vary depending on strata type, condition, temperature, and hole-bolt annulus.

Wear suitable protective clothing, gloves and eye/face protection.

- In case of contact with skin remove contaminated clothing and wash with soap and water, seek medical attention if skin irritation persists.
- In case of contact with eyes, flush with copious amounts of water and seek medical assistance.
- If inhaled remove from exposure and seek medical advice if effects persist.
- If ingested wash out mouth with water and obtain medical attention.

For further information see the relevant Material Safety Data Sheet, copies of which are available on request.

PACKAGING AND TRANSPORTATION

Lokset™ TOOSPEEDIE™ resin capsule options	
Length	900 mm; 1000 mm; 1050 mm; 1350 mm
Nominal diameter	23 mm; 25 mm; 30 mm

Other diameters may be available, please consult one of our representatives.

The capsules are packed in cardboard cartons and supplied on wooden pallets, shrink-wrapped.

STORAGE AND SHELF LIFE

The Lokset™ TOOSPEEDIE™ resin capsule shelf life is 4 months when stored at 20°C. Storage at lower temperatures such as in cool rooms is highly recommended and will extend the shelf life when stored at 0-5°C. Stock rotation is essential.

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.

DISPOSAL

Follow local regulations.

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ADDITIONAL DOCUMENTATION

- MSDS of Lokset™ TOOSPEEDIE™ Resin Capsules

LIST OF REPRESENTATIVES

- AUSTRIA: Minova MAI GmbH
- CZECH REPUBLIC: Minova Bohemia s.r.o.
- FRANCE / BELGIUM: Sales office Minova France / Belgium
- GERMANY: Minova CarboTech GmbH
- ITALY: Minova CarboTech GmbH Italy branch

- KAZAKHSTAN: Minova Kazakhstan LLP
- POLAND: Minova Ekochem S.A.; Minova Arnall Sp. z o.o.; Minova Ksante Sp. z o.o.
- RUSSIA: ZAO "Carbo-ZAKK"
- SLOVAKIA: Minova Bohemia s. r. o., organizačná zložka
- SOUTH AFRICA: Minova Africa (Pty) Ltd.
- SPAIN: Minova Codiv S.L.U.
- SWEDEN / NORWAY: Minova Nordic AB
- UNITED KINGDOM: Minova Weldgrip Ltd.; Minova International Ltd.
- APAC: Minova Australia Pty Ltd.
- AMERICAS: Minova USA Inc.

CUSTOMER SERVICE

For additional support options available at your area, contact our local offices.

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