

## Lokset<sup>®</sup> Resin Cartridges Eclipse<sup>®</sup> B Series

### Reinforced Polyester Resin Anchor

#### Uses

The patented Eclipse<sup>®</sup> B Series methodology employs an offset head rebar bolt and specially formulated Minova resin to improve resin mixing and minimize glove fingering. The concept is simple; by offsetting the head, the bolt acts as a mixing cam in the borehole, quickly combining the resin components and incorporating the plastic film within the cured resin. The Lokset<sup>®</sup> Resin Cartridge Eclipse<sup>®</sup> B Series is specifically designed to be used in conjunction with a #5 (5/8") steel rebar roof bolt in a 1" borehole.

#### Advantages

- **Proven** - After introducing resin anchors to the United States in 1971, Minova's Lokset<sup>®</sup> Resin Cartridges have a proven record of success.
- **Strong** - When used properly, Lokset<sup>®</sup> Resin Cartridges consistently surpass the strength of the bolt or the surrounding strata, whichever is weaker.
- **Rigid** - Through innovative product engineering and manufacturing, the Lokset<sup>®</sup> Resin Cartridge Eclipse<sup>®</sup> B Series is stiff and easy to handle during installation.
- **Variety** - The Lokset<sup>®</sup> Resin Cartridge Eclipse<sup>®</sup> B Series is available in a wide variety of lengths and speeds which will satisfy most applications.
- **Viscosity** - The Lokset<sup>®</sup> Resin Cartridge Eclipse<sup>®</sup> B Series is available in High, Medium, and Low Insertion Force (LIF) viscosities. The LIF formulation is unique in the industry and provides optimum performance with cable and mechanical assisted resin point anchor rock bolts.

#### Description

One of the critical variables affecting resin bolt performance is the size of the resin annulus, calculated as the difference between the hole and bolt diameters. The optimum annulus has been proven to be 1/4", which provides for effective mixing of the two polyester resin components and incorporation of the plastic film within the cured resin. Glove fingering occurs when the plastic film is forced against the borehole wall, potentially interfering with the mechanical interlock of the resin and the rock mass.

Glove fingering is not a problem with the optimum 1/4" annulus but has been known to occur with the B-Series 3/8" annulus. The newly formulated Lokset<sup>®</sup> Resin Cartridge Eclipse<sup>®</sup> B Series, when combined with an 1/8" offset between the bolt head and shaft axes, reduces the glove fingering by 70%.

The Lokset<sup>®</sup> Resin Cartridge Eclipse<sup>®</sup> B Series is available in lengths ranging from one to five grouted feet. The cartridge is also available in a variety of speeds.

*Continued >*

# Lokset®

## Resin Cartridges

### Eclipse® B Series

#### General Installation Instructions For Fully Grouted Systems

Contact your local representative if the Lokset® Resin Cartridge Eclipse® B Series is to be used in other applications.

1. Before use, read the installation and safety information provided with each box. Read the material safety datasheet.
2. To obtain a consistent set time, make sure the Lokset® Resin Cartridge Eclipse® B Series and bolt are at mine temperature before use.
3. Drill the borehole to the correct diameter (1") at a depth 1" longer than the bolt.
4. Insert the required number of Eclipse® B Series cartridges.
5. Push the bolt into the hole. Slow rotation of the bolt as it passes through the cartridge is suggested but not required.

6. Just below the roof, stop and spin the bolt to mix the cartridge approximately 3 to 8 seconds.
7. Stop rotation and push the bolt upward with full thrust until the resin sets.
8. **Do not over spin the bolt.** If bolt rotation continues through the gel time, damage to the anchor may occur.
9. **Never re-spin the bolt.** Bolt rotation after the final spin may damage the partially set resin.

#### Packaging

Product packaging is dependent upon cartridge length. Please refer to the Lokset® Resin Cartridge product line brochure for packaging information.

#### Shelf Life

One year when stored in a cool, dry place out of direct sunlight. For maximum performance, stock rotation is strongly recommended.

For further information, please consult your local Minova representative.

## Minova Americas Products

**Bolts and Plates**

**Anchoring Products**

**Pumpable Cementitious Grouts**

**Airtite® Sealants and Coatings**

**Chemical Grouts**

#### Important Note: Warranty

Minova USA Inc. warrants that its products, at the time of shipment, conform to the applicable descriptions set forth in the invoice and are free from defects in material and workmanship. NO OTHER WARRANTY, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING ANY WARRANTY OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE, SHALL EXIST IN CONNECTION WITH THE SALE OR USE OF ANY MINOVA USA INC. PRODUCT, AND ALL SUCH WARRANTIES ARE HEREBY EXPRESSLY DISCLAIMED AND EXCLUDED.

All claims under this warranty must be made in writing to Minova USA Inc. within 15 days after discovery of the defect, and within 90 days of the date of shipment by Minova USA Inc. of the product claimed defective. Upon timely receipt of a claim, Minova USA Inc. shall have the option either to inspect the product while in Buyer's possession or to request Buyer to return the product to Minova USA Inc. for inspection. Claims not made as provided above and within the applicable time period will be barred. All warranties shall be null and void if the products have not been stored and used in accordance with procedures recommended by Minova USA Inc.

Minova USA Inc. shall, at its option, either replace the nonconforming or defective product or refund to Buyer its purchase price. The foregoing constitutes Buyer's sole and exclusive remedy for any breach of warranty.



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