Loctite® Solutions for Mining

ASSET PROTECTION – COMPONENT ASSEMBLY & DISASSEMBLY

Loctite® ANTI-SEIZES AND LUBRICANTS

- Known K-factors for controlled torque-tension relationship*
- Extreme chemical, corrosion, seizing and galling resistance
- Range of pack sizes and types
- Reliability & proven application history
- Application assistance & training from Loctite’s expert team
- Maximise productivity & reduce costs

Loctite® HEAVY DUTY ANTI-SEIZE

- Reduced OH&S risks - NON-HAZARDOUS
  - Eliminate multiple risk phrases associated with commonly-used nickel, aluminium and copper based anti-seizes, e.g. harmful, irritant, sensitisation, possible carcinogen
  - Green Chemalert rating
- Metal-free calcium/graphite formulation
- Can be used on all alloys
- Reduced environmental impact
- Excellent lubrication and torque-tension control
- 1315°C temperature rating
- 500g brush-top can & 20g stick
- Excellent chemical, corrosion, seizing and galling resistance
- Site-wide application (fixed & mobile plant) – e.g. fasteners, dowels, pins
- Typical K-factor = 0.16*

Part No.: 51606 Pack size: 510g brush top can
Part No.: 41205 Pack size: 20g stick

Case history: Lubrication and protection of pump house bolts

Henkel
Excellence is our Passion
Proper clamp load is an essential part of any bolted assembly for trouble-free operations. Torquing either nut or bolt creates the clamp load.

An anti-seize lubricant used on a bolt helps to develop greater clamp load for the same torque compared to a non-lubricated bolt. An additional benefit is greater uniformity in clamp load among a series of bolts. The relationship between torque and clamp load is expressed in the following equation:

\[ T = KFD \]

Where: \( T \) = Torque (in.-lb., ft.-lb., N-m), \( F \) = Clamp Load (lb., N), \( D \) = Nominal diameter of bolt (in., ft., m), \( K \) = Torque coefficient or nut factor, determined experimentally.

**K Factors:** K factors are obtained on Grade 8, 1/2" steel bolts and grade 5 nuts by a test procedure that measures torque tension properties. Lubricant was applied to the bolt threads and both faces of the washer. See the Properties Chart for the torque coefficient or K value for the anti-seize compounds. Henkel Corporation believes that this data fairly represents performance to be expected. However, Henkel makes no warranty of specific performance on any individual fastener. In critical applications, it is necessary to determine K values independently.

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**Loctite® NICKEL ANTI-SEIZE**
- Extremely chemically resistant nickel/graphite formulation
- Can be used on all alloys up to 1315°C
- Typical K factor = 0.18*

Part No: 39163 Pack size: 500g

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**Loctite® SILVER GRADE ANTI-SEIZE**
- General purpose aluminium/graphite formulation
- Can be used on all alloys up to 870°C
- Typical K factor = 0.18*

Part No: 76769 Pack size: 500g
Also available:
- Part No: 76756 Pack size: 175g aerosol
- Part No: 76741 Pack size: 250g tube
- Part No: 76731 Pack size: 5kg pail

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**Loctite® C5A COPPER ANTI-SEIZE**
- General purpose copper/graphite formulation protects to 982°C
- Typical K factor = 0.16*

Part No: 51007 Pack size: 453g

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**Loctite® MOLY DRY FILM AEROSOL**
- Solid film lubricant for sliding surfaces and slow moving parts
- Temperature resistant up to 400°C as a dry film lubricant and 1315°C as an anti-seize
- Dry film does not attract dirt, won’t squeeze out or burn off
- Typical K Factor = 0.06 – 0.12*
- Typical applications include:
  - Drill rig slides
  - Thread lubricant
  - Dry bearing surfaces
  - Conveyor chains

Part No: 39895 Pack size: 340g aerosol Case history: Drill rig slides

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*Torque Guide*

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For more assistance please call your local Loctite® Application Engineer or 1300 88 555 6