

PRODUCT DESCRIPTION

LOCTITE® 8160 Antiseize is a pre-applied high temperature antigalling, thread lubricant that is dry to touch. The product is non curing and completely inert at all times.

TYPICAL APPLICATIONS

Lubricates threaded parts exposed to high temperatures allowing easy disassembly. Formulated to function at temperatures up to 650°C. Lubricating properties reduces thread friction lowering applied torque for required bolt force. Seals against a range of fluids. Reuseable up to five times.

PROPERTIES OF UNCURED COATING MATERIAL

Pre-applied (Dry film) coating
Chemical Type Polymeric Emulsion
Appearance Dark grey to black preapplied film
Flash Point (TCC), °C > 200

Lubricity, DIN 946 K factor (Torque/Tension)
M10 x 1.5 Plain Steel Bolts 0.17
M10 x 1.5 Black Oxide Bolts 0.15

TYPICAL PERFORMANCE OF MATERIAL

On-torque, tested at 22°C on unseated nuts & bolts, based on General Motors Engineering Standard, GM6108M.

On Torque 0.8-3.2 Nm

Breakaway Torque, ISO 10964, Unseated, 24 hours at 650°C Tested at 22°C

	Value (Nm)	Range (Nm)
M10 x 1.5 Plain Steel Bolts,	31	11-47
M10 x 1.5 Black Oxide Bolts	30	16-40

Breakaway Torque, ISO 10964, Seated 24 hours at 650°C Tested at 22°C

	Value (Nm)	Range (Nm)
M10 x 1.5 Plain Steel Bolts,	15	10-20
M10 x 1.5 Black Oxide Bolts	12	6-15

HEAT AGEING

Test procedure: M10 x 1.5 plain steel bolts were assembled against a tapped steel plate to 42 Nm and heated to 650°C for 24 hours and tested at 22°C. (General Motors Engineering Standard, GM6108M)

Test Conditions: 24 Hours @650°C. Tested at 22°C

Breakaway Torque	Value (Nm)	Range (Nm)
M10 x 1.5 Plain Steel Bolts	20	5-36
M10 x 1.5 Black Oxide Bolts	12	10-16

Reusability

Test Conditions: After 5th exposure and disassembly. 24 Hours @650°C each test. Tested at 22°C

Breakaway Torque	Value (Nm)	Range (Nm)
M10 x 1.5 Plain Steel Bolts	28	20-37
M10 x 1.5 Black Oxide Bolts	33	27-40

ENVIRONMENTAL CONDITIONING

Test Procedure: 1000 hours conditioning at 40°C/98%RH.

Breakaway Torque, ISO 10964, Seated	Value (Nm)	Range (Nm)
M10 x 1.5 Plain Steel Bolts	19	14-27
M10 x 1.5 Black Oxide Bolts	20	16-25

Test Procedure: ASTM B117, 1000 hours conditioning at 35°C/5% salt spray.

Breakaway Torque, ISO 10964, Seated	Value (Nm)	Range (Nm)
M10 x 1.5 Plain Steel Bolts	25	18-33
M10 x 1.5 Black Oxide Bolts	19	13-25

Sealing

Test Procedure: Mil. Spec S-46163, tested at 22°C.

M10 x 1.5 Plain Steel Bolts	No Leakage
M10 x 1.5 Black Oxide Bolts	No Leakage

After exposure to 650°C for 24 hours. Tested at 22°C

M10 x 1.5 Plain Steel Bolts	No Leakage
M10 x 1.5 Black Oxide Bolts	No Leakage

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidising materials.

This product is not normally recommended for use on brass or copper surfaces or on plastics. Users are recommended to confirm compatibility of the product with such substrates.

Directions for use

This coating is produced from an aqueous system. The components are coated onto threads at approved Loctite coating centres. Details are available from your local Technical Service Centre.

The coated fastener is ready for immediate use and can be assembled to its mating threaded component at any time within its on-part shelf life period. For best performance the mating surface should be clean and free of grease. Product is normally pre-applied to the bolt in sufficient quantity to fill all engaged threads. Dried coating on parts can be removed by tumbling parts in detergent and hot water.

Storage

Coated fasteners shall be ideally stored in a dry location at a temperature between 8°C - 28°C (46°F - 82°F). For further specific shelf-life information, contact your local Technical Service Centre.

Data Ranges

The data contained herein may be reported as a typical value and/or range (based on the mean value ± 2 standard deviations). Values are based on actual test data and are verified on a periodic basis.

Note

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, Loctite Corporation specifically disclaims all warranties expressed or implied including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Loctite Corporation products. Loctite Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits. The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a licence under any Loctite Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.