LOCTITE® C5-A® Copper Grade Anti-Seize Stick

PRODUCT DESCRIPTION

LOCTITE® C5-A® Copper Grade Anti-Seize Stick provides the following product characteristics:

Technology	Anti-Seize
Chemical Type	Naphthenic oil
Appearance	Copper color[LMS]
Appearance (form)	Stick
Cure	Non-curing
Application	Lubrication

LOCTITE® C5-A® Copper Grade Anti-Seize Stick provides a shield against high temperature seizing and galling. All mated parts, studs, bolts, flanges and gaskets, remove more easily and in cleaner and better condition. This product can be used on copper, brass, cast iron, steel, all alloys including stainless steel, all plastics and all non-metallic gasketing materials. Typical applications include original equipment and maintenance, and equipment associated with petroleum chemicals, steel mills, power plants, marine and foundries. This product is typically used in applications up to 982 °C.

MIL-PRF-907

LOCTITE® C5-A® Copper Grade Anti-Seize Stick meets the performance requirements of Military Specification MIL-PRF-907.

TYPICAL PROPERTIES

Specific Gravity @ 25 °C	1.18
Flash Point - See MSDS	
Penetration, ISO 2137, 1/10mm	20 to 80[LMS]
Copper Corrosion, ISO 2160	Slight tarnish, 1a
Dimensional Stability @ 77°C	Pass
Salt Fog, MIL-PRF-907, third cycle	Pass

TYPICAL PERFORMANCE

An anti-seize lubricant used on a bolt helps to develop greater clamp load for the same torque compared to an unlubricated 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 = K x F x D

T = Torque (N·m, lb.in, lb.ft)
K = Torque coefficient or nut factor, determine experimentally
F = Clamp load (N, lb.)
D = Nominal diameter of bolt (mm, in.)

Torque coefficient, k:

SAE grade 5, class2, phosphate coated steel nuts & bolts	0.16
SAE grade 5, class2, phosphate coated steel nuts & bolts, solvent cleaned, not lubricated	0.19

(In critical applications, it is necessary to determine the K values independently. Henkel corporation makes no warranty of specific performance on any individual fastener)

GENERAL INFORMATION

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

For safe handling information on this product, consult the Material Safety Data Sheet (MSDS).

Directions for use

1. For best performance the mating surface should be clean and free of grease.
2. **Note**: **When grinding or wire brushing, use a dust mask**. Dust from cleaning threads may contain metal compounds. Inhalation may cause lung injury or other harm.
3. Apply thin coating to threads and flats of nuts and bolts, assemble.

Loctite Material Specification[LMS]

LMS dated November 13, 2002. Test reports for each batch are available for the indicated properties. LMS test reports include selected QC test parameters considered appropriate to specifications for customer use. Additionally, comprehensive controls are in place to assure product quality and consistency. Special customer specification requirements may be coordinated through Henkel Quality.

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.
Optimal Storage: 8 °C to 21 °C. Storage below 8 °C or greater than 28 °C can adversely affect product properties. Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel Corporation cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.

DRAFT

Conversions
(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
µm / 25.4 = mil
N x 0.225 = lb
N/mm x 5.71 = lb/in
N/mm² x 145 = psi
MPa x 145 = psi
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

Note
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Reference 1.2

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