

LOCTITE® ViperLube® Clear **High Performance Synthetic Grease**

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PRODUCT DESCRIPTION

LOCTITE® ViperLube® Clear High Performance Synthetic Grease provides the following product characteristics:

Technology	Oil & Grease
Appearance	Opaque white ^{LMS}
Cure	Non-curing
Application	Lubrication

LOCTITE® ViperLube® Clear High Performance Synthetic Grease is an advanced multi-purpose NLGI Grade 2 grease that is composed of synthetic PAO (polyalphaolefin) base stocks and a fumed silica thickener. Due to its base oil chemistry this product is ideal for use on food processing equipment as a lubricant for machine parts and equipment, as a release agent on gaskets or seals, and is an acceptable choice for use as a protective anti-rust film. LOCTITE® ViperLube® Clear High Performance Synthetic Grease also contains PTFE filler which when compared to other food grade lubricants provides excellent wear resistance under extreme loads. It is an excellent lubricant for industrial processes where a wide range of operating temperatures and environments are encountered.

NSF International

Registered to NSF Category H1 for use as a lubricant with incidental food contact in and around food processing areas.

TYPICAL PROPERTIES

Specific Gravity @ 25 °C	0.9 to 0.93 ^{LMS}
Penetration, ISO 2137, 1/10mm	265 to 295 ^{LMS}
Viscosity, base oil, ASTM D445, cSt:	
@ 40 °C	103
@ 100 °C	12
Drop Point, ISO 2176, °C	≥300 ^{LMS}
Low-Temperature Torque, -40 °C, ASTM D1478, N·m:	
Start	0.42
1 Hour Running	0.14
Oil Separation, ASTM D6184, % wt. loss:	
30 hours @ 100 °C	≤4 ^{LMS}
Oil Separation in Storage, ASTM D1742, % wt. loss	3.1
Copper Corrosion, ISO 2160	1b
Wear Protection, Scar Diameter, ASTM D2266, mm	0.6
Fretting Wear, ASTM D4170, mg	0.8
EP Performance, ASTM D2596, kgf:	
Load Wear Index	27
Weld Point	≥160 ^{LMS}

Bomb Oxidation, ASTM D942, N/mm² drop:

100 hours	0.007
500 hours	0.12

Wheel Bearing Leakage, ASTM D4290, g

2.7

Infrared Spectroscopy

To match standard^{LMS}

Flash Point - See MSDS

Compatibility with Polyalphaolefins

Since plastics and elastomers can be formulated and manufactured to have a wide range of physical properties, it is recommended that compatibility for the particular grade or product formulation be established for the specific application.

The following information details various materials and their compatibility with LOCTITE® ViperLube® Clear High Performance Synthetic Grease.

Compatibility of Various Materials with Polyalphaolefin Lubricants:

<u>Acceptable</u>	<u>Application Dependant</u>	<u>Not Recommended</u>
Fluorocarbon	Low Nitrile Buna N	High Nitrile Buna N
Fluorosilicone	Epichlorohydrin	Butyl
Polyurethane	Neoprene	Ethylene/Propylene
Silicone	Polysulfide	Buna S
Chlorinated Polyethylene	Chlorosulfonated Polyethylene	Polyisoprene
Propylene Oxide		
Polyacrylate		
Ethylene/Acrylic		

Compatibility with Fumed Silica

LOCTITE® ViperLube® Clear High Performance Synthetic Grease utilizes fumed silica as a thickening agent. Other greases utilize various thickeners and not all of these are compatible with one another. When mixed together, typically incompatible thickening agents will decrease in viscosity and cause the grease to thin. When changing over greases it is important that you determine the compatibility of the thickeners involved to minimize the chance of damaging the lubrication site.

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 oxidizing materials

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

Loctite Material Specification^{LMS}

LMS dated September 24, 2004. 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: 10 °C to 30 °C. Storage below 10 °C or greater than 30 °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.

Conversions

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$
 $\text{kV/mm} \times 25.4 = \text{V/mil}$
 $\text{mm} / 25.4 = \text{inches}$
 $\mu\text{m} / 25.4 = \text{mil}$
 $\text{N} \times 0.225 = \text{lb}$
 $\text{N/mm} \times 5.71 = \text{lb/in}$
 $\text{N/mm}^2 \times 145 = \text{psi}$
 $\text{MPa} \times 145 = \text{psi}$
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$
 $\text{mPa}\cdot\text{s} = \text{cP}$

Note

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Reference 1.1