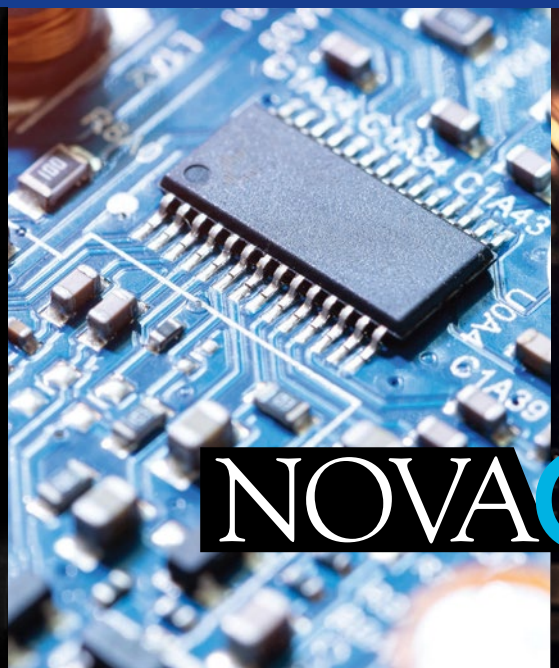
Extraordinary environments need extraordinary lubricants.



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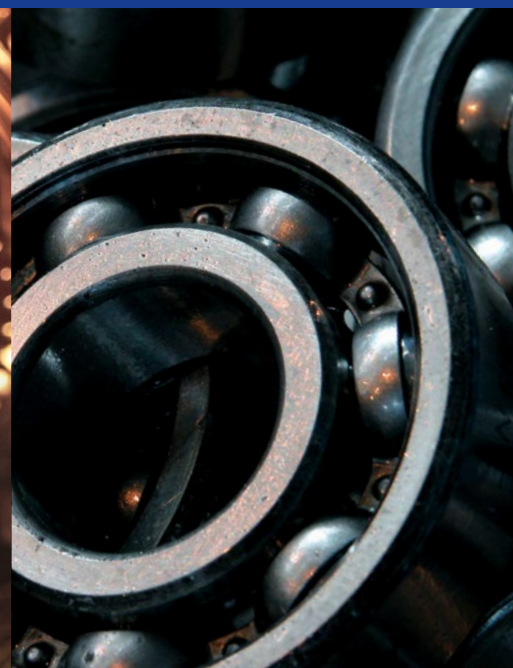
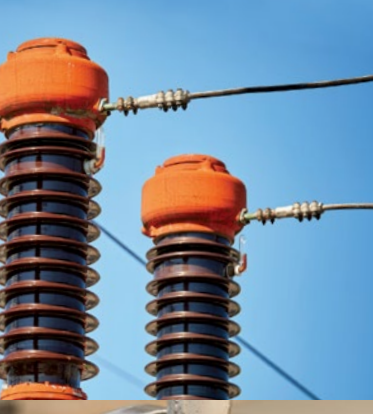


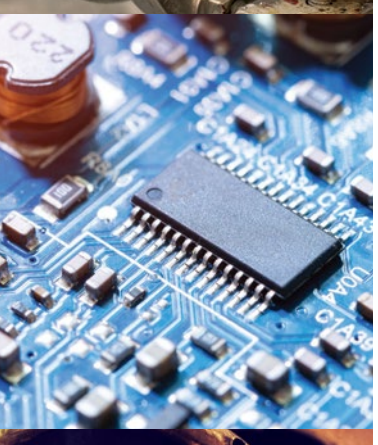
Silicone-based lubricants for extreme environments.

Tough conditions need silicone-based lubricants. And Novagard has over 40 years experience in silicone. The unique properties work in extreme environments to offer a longer service life. The typical properties you can expect:

Typical properties include:

- **Wide operating temperature ranges, -73°C to 205°C**
- **Maintains consistency without smoking, melting, or charring**
- **High oxidation resistance**
- **Excellent dielectric performance**
- **Noncorrosive, chemically inert, compatible with plastic and most organics**
- **Superior release**
- **Excellent hydrolytic stability**





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Silicone Greases

Lithium soap thickened greases **to reduce friction and wear** under loads, slow speeds, and variable environmental conditions.

G321
Ultra-low operating temperature
Temp range: -73°C to 204°C

G322L
Outstanding corrosion protection
Temp range: -55°C to 150°C

G326
Enhanced corrosion protection
Temp range: -55°C to 150°C

G330M
General purpose lubricant
Temp range: -55°C to 150°C

G351
Oxidation and radiation resistant
Temp range: -40°C to 204°C

General Purpose/ Dielectric Compounds

Silicone thickened with inorganic fillers **for lubrication and insulation** are resistant to oxidation and thermal degradation.

G624
Superior dielectric strength
Temp range: -40°C to 205°C

G635
Lower operating temperatures
Temp range: -57°C to 200°C

G661
Seals and protects electrical connections above and below ground; excellent plastic and rubber lubricant
Temp range: -40°C to 205°C

G662
Certified to NSF Standard 61 for drinking water system components
Temp range: -40°C to 205°C

G687
Ideal for high voltage insulators to prevent flashover
Temp range: -40°C to 205°C

G697
Inhibitor fights galvanic corrosion
Temp range: -55°C to 150°C

Thermally Conductive Compounds

Non-curing materials offering **excellent heat transfer** in large and small electrical and electronic components. Our thermally conductive compounds provide cost effective thermal management in a wide variety of applications.

G641
Ideal for thermocouple wells, power diodes, transistors, semiconductors, and ballasts
Temp range: -40°C to 205°C
TC=0.7 W/mK

G644
A softer and lower viscosity version of G641
Temp range: -40°C to 205°C
TC=0.7 W/mK

		G321	G322L	G326	G330M	G351	G624	G635	G661	G662	G687	G697	G641	G644
	DOW OFFSET	DC33, DC55				DC44	DC4	DC5	DC111	DC111	HV3099		DC340	DC340
ATTRIBUTES	oxidation resistant	●	●	●	●	●	●	●	●	●	●	●	●	●
	water resistant	●	●	●	●	●	●	●	●	●	●	●	●	●
	non-polar solvent soluble	●	●	●	●	●	●	●	●	●	●	●	●	●
	dielectric	●	●	●	●	●	●	●	●	●	●	●		
	corrosion protection	●	●	●	●	●	●	●	●	●	●	●		
	galvanic corrosion inhibitors		●	●								●		
	moisture resistant	●	●	●	●	●	●	●	●	●	●	●		
	vacuum resistant						●		●	●	●	●		
	radiation resistant	●				●								
	thermal conductors												●	●
APPLICATIONS	metal to metal	●	●	●	●	●								
	aluminum lubrication		●	●	●									
	ball bearings	●	●	●	●	●								
	roller bearings		●	●	●									
	sleeve bearings		●	●	●									
	chassis lubrication		●	●	●		●		●					
	high temp chains/gears/linkages		●	●	●									
	swivel joints		●	●	●									
	medium loads	●	●	●	●	●								
	light loads	●	●	●	●	●								
	low speed/movement	●	●	●	●	●	●	●	●	●	●	●	●	●
	thread protector						●		●	●	●	●		
	metal to rubber	●	●	●	●	●	●		●	●	●	●		
	metal to plastic	●	●	●	●	●	●		●	●	●	●		
	rubber to plastic				●		●		●	●	●	●		
	high temp operation	●	●	●	●	●	●	●	●	●	●	●	●	●
	low temp operation	●	●	●	●	●	●	●	●	●	●	●	●	●
	mold release										●			
	electrical insulators & connectors						●	●	●		●			
	telecommunication connectors						●		●					
	relays & switches		●	●			●		●			●		
	conveyors		●	●	●									
	well drilling		●	●	●									
SPECIFICATIONS	CID A-A-59173 Type II (formerly Mil-G-46886B)	●												
	Mil-L-15719A					●								
	SAEAS-8660 (formerly Mil-S-8660C)						●							
	Mil-C-21567C											●		
	NSF Standard 61									●				

Methods of Application

Silicone greases may be wiped on, brushed on, dispensed from a grease gun, or applied by automated equipment. In addition, when dispensed in a non-polar solvent, they may be applied by brushing, spraying, or dip coating. Caution is required in the selection of solvents.

Handling and Safety

Cleanup of silicone greases and compounds can be accomplished using non-polar solvents such as mineral spirits. They are soluble in stoddard solvents, toluene, and xylene.

Silicone greases are not suitable for use in contact with high concentrations of oxygen or highly oxidative materials. Contact with high pressure oxygen, ozone, peroxides, or fuming nitric acid can result in fire or explosion. Silicone materials are damaged by exposure to strong mineral acids (*e.g.* sulfuric, hydrochloric, nitric), strong alkaline solutions (*e.g.* sodium or potassium hydroxides), nitrates, or peroxides.

Material Compatibility

Generally, silicone materials have the following impact on material properties:

– Silicone rubber: Often not compatible, consult your sales representative.
– Fluorinated rubber: No effect.
– Organic rubber: Slight shrinkage, hardening, and loss of physical properties.
– Plastic: No effect on polycarbonate, phenolic, polystyrene, nylon, methacrylics, or PTFE.

Novagard silicone greases and compounds are not recommended for bearings with a D/N ratio exceeding 200,000. D/N ratio is calculated by multiplying the diameter (mm) times the bearing speed (rpm).

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