SINCE 1839 Schaeffer's SPECIALIZED LUBRICANTS

TECHNICAL DATA

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ISO 9001 CERTIFIED

286C HI-TEMP GREASE WITH COPPER

Hi-Temp Grease With Copper is a high temperature synthetic silica gel thickened anti-wear, extreme pressure grease that is specially formulated for those industrial bearing applications, where extremely high temperature up to 1200°F (650°C) are encountered.

Hi-Temp Grease With Copper is compounded from a blend of polyethylene glycol synthetic base fluids and a silica gel based thickener system. Further blended into these polyethylene glycol synthetic base fluids and the silica based thickener system is a proprietary high temperature anti-wear extreme pressure additive and a combination of molybdenum disulfide, graphite and copper flake.

As high temperatures occur the Hi-Temp Grease With Copper will gradually soften in consistency without any dripage of the synthetic base fluids, in order to carry and spread the molybdenum disulfide, graphite and copper flake into the bearing clearances and onto the bearings surfaces. As the temperatures continues to become elevated the synthetic base fluids begin to volatilize cleanly without leaving any residues, varnishes, gums or carbon deposits on the bearing surfaces. Once the synthetic base fluids have volatilized off a solid lubricant film consisting of the high temperature anti-wear extreme pressure additive and the combination of molybdenum disulfide, graphite and copper flake is left behind to lubricate at temperatures up to 1,200°F (650°).

Hi-Temp Grease With Copper's extreme pressure additive, molybdenum disulfide, graphite and copper flake has a natural affinity for metal surfaces. This natural affinity for metal surfaces allows this solid lubricant combination to plate themselves to these surfaces in order to form a long lasting solid lubricant film which not only withstands high temperatures, but also will withstand pressures in excess of 500,000 psi. This long lasting solid lubricant film provides the metal surfaces of the bearings the superior protection they need especially during periods of high shock loading, extreme pressure and vibration.

The solid lubricant film also helps to reduce friction. This reduction in friction results in reduced wear which in turn leads to increased bearing life, energy savings, less downtime and extended lubrication cycles.

Hi-Temp Grease With Copper also has excellent rust and oxidation inhibiting characteristics, very good water resistance and good mechanical and shear stability and very good adhesive properties. Further, the Hi-Temp Grease With Copper adhesive properties prevent the Hi-Temp Grease With Copper from washing out, pounding out, splattering or being squeezed out even under the heaviest loads and vibrations.

Note: Grease must reach 600°F or higher consistently before it will lubricate effectively.

The following is a brief list of high temperature applications where Hi-Temp Grease With Copper can be used.

- Kiln Car Wheels
- Conveyors in Ovens
- Coke Oven Door Latches
- Oven Damper Control Bearings
- Roller Chains
- Larry Car Journals
- Charging Cars
- Furnace Table Bearings
- Soaking Door Pits
- Tenter Frames
- Pallet Wheels
- Dollies and Dogs of Hot Beds
- Stack Valves
- Ingot Buggy Tilt Bearings
- Cement Mill Clinker Dryers

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TYPICAL PROPERTIES

NGLI Grade	#1 ½
Specific Gravity 60°F	1.106
Worked Penetration @ 77°C (ASTM D217)	295-305
Type Thickener	Silica Gel
Dropping Point °F/°C (ASTM D2265)	>500°/>260°
Four Ball E.P. (ASTM D2266)	
Weld Point, kg	400
Load Wear Index	71.51
Four Ball Wear (ASTM D2266)	
Scar Diameter, mm	0.58
Timken E.P. (ASTM D2509)	
Ok Load, lbs.	60
Falex Continuous Load (ASTM D3233)	
Failure Load, lbs	+4500
Base Fluid Properties	
Viscosity @ 40°C, cSt (ASTM D445)	38.21
Viscosity @ 100°C, cSt (ASTM D445)	8.27
Viscosity Index (ASTM D2270)	200
Flash Point °F/°C (ASTM D92)	>435°/>225°