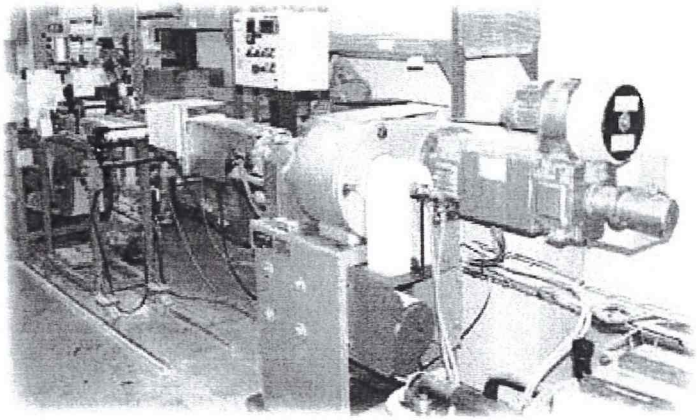
Product Information

Almasol® High Temperature Lubricant (1250-1251)

Long-Lasting, Nonmelting Grease Provides Constant Protection for High-Temperature Bearing Applications

Bearings operating in or near heat-generating equipment are subject to temperatures that cause ordinary greases to melt and run, leaving critical bearing surfaces unprotected. Almasol® High Temperature Lubricant is designed to withstand high temperatures, staying in place to provide constant lubrication. It also resists oxidation and vaporization. By ensuring longer lubrication intervals and fewer bearing failures, Almasol High Temperature Lubricant helps contribute to increased production and a healthier bottom line.



Source: Cjp24, via Wikimedia Commons

A plastic extruder such as this is the type of high-temperature application for which Almasol 1250-1251 provides superior bearing protection.

Beneficial Qualities

Withstands High Temperatures

- Heavy base oil and R & O additive formulation ensures extended bearing protection
  - o Won't melt or run out of bearings
  - o Resists oxidation and vaporization
- 1251 (NLGI 1) offers easy pumpability in central lubrication systems

Provides Superior Protection

- Reduces wear by minimizing metal-to-metal friction, even under heavy loads
- Protects metal from rust and corrosion

Provides Long-Lasting, Cost-Saving Service

- Exhibits excellent mechanical stability
- Reduces lubricant consumption
- Extends lubrication intervals
- Reduces downtime associated with bearing failures and frequent regreasing

Available Grades

- NLGI 2 1/2 (1250)
- NLGI 1 (1251)

Proprietary Additives

LE's proprietary additives are used exclusively in LE lubricants. Almasol High Temperature Lubricant contains Almasol.

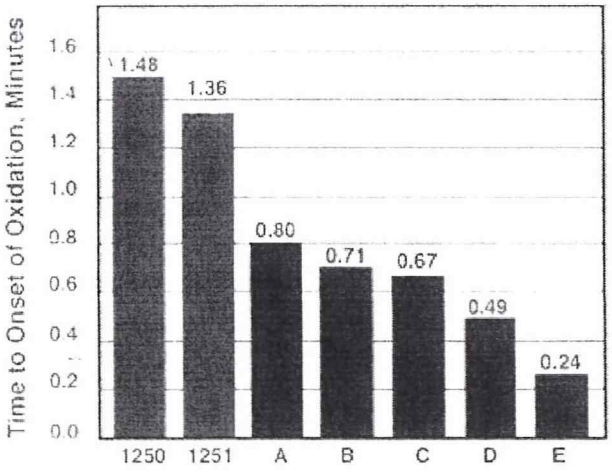
Almasol® solid wear-reducing additive is able to withstand extremely heavy loads, chemical attack and temperatures up to 1,900°F (1,038°C). It is attracted to metal surfaces, forming a microscopic layer but not building on itself or affecting clearances. Almasol minimizes metal-to-metal contact and the resulting friction, heat and wear.

Technical Data

Almasol® High Temperature Lubricant

Differential Scanning Calorimetry

DSC is a sophisticated technique for evaluating the oxidation characteristics of a sample of lubricant in a static condition. It is a rapid and reproducible method that measures the heat flow under controlled conditions. Samples are put under pressure in a pure oxygen or air environment and the temperature raised until significant heat flow occurs. This heat flow indicates onset of oxidation. The longer the time taken for heat flow to occur indicates better resistance to oxidation and hence longer lubricant life in the application. Samples may also be run at a fixed temperature and time recorded until onset of oxidation. While there is no exact correlation to field conditions, several minutes in the DSC represents several hundred hours in operation.



DSC Oxidation, ASTM D5483, 210°C

The DSC time to onset of oxidation of Almasol High Temperature Lubricant is almost double that of the nearest competitor tested. This shows the LE grease's superior resistance to oxidation and its ability to last longer in severe high-temperature applications.

	1250	1251
Thickener Type	Inorganic	Inorganic
Texture	Smooth, Buttery	Smooth, Buttery
Color	Red	Red
NLGI Grade	2 1/2	1
Worked 60 Penetration ASTM D217	250	320
Dropping Point °C (°F), ASTM D2265	None	None
Base Fluid Characteristics		
Viscosity @ 100°C, cSt, ASTM D445	30.9	30.9
Viscosity @ 40°C, cSt, ASTM D445	495	495
Corrosion Prevention DI H_2O, ASTM D1743	Pass	Pass
Corrosion Prevention Sea H_2O, ASTM D5969	Pass	Pass
Corrosion Prevention Emcor, ASTM D6138	1 Max	–
Four-Ball EP Weld Point kgf, ASTM D2596	160	200
Four-Ball EP Load Wear Index kgf, ASTM D2596	33.1	42.5
Four-Ball Wear @ 75°C, 1,200 rpm, 40 kgf, 60 minutes, mm wear, ASTM D2266	0.77	0.77

Performance Requirements Met or Exceeded

- H2

Recommendations

- Although this product is formulated with inorganic thickeners, it contains petroleum oil which, under very high temperatures, can ultimately form carbon and residues as do other greases with petroleum oils.
- May show high-starting torques due to heavy oil.

Typical Applications

High-temperature applications, including: asphalt plants, brick/ceramic kilns, exhaust fans, kiln car bearings, lime kilns, oven conveyors, pellet mills, plastics and soot blowers

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