



## Monolec® Multiplex Lubricant (4622)

### *High-Quality Grease Offers Versatile EP Performance*

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Monolec® Multiplex Lubricant (4622) is a highly versatile, long-life, lithium-complex-thickened grease designed for extreme pressure (EP) performance in a variety of farm, fleet, industrial and marine applications. It provides dependable performance in a broad operating temperature range in chassis, wheel bearings and other critical grease points.

#### Beneficial Qualities

##### *Demonstrates Excellent Versatility*

- Works in wide variety of farm, fleet, industrial and marine applications
- Protects both plain and anti-friction bearings
- Meets requirements of NLGI GC-LB grease specification

##### *Withstands Pressure & Reduces Wear*

- Demonstrates superior EP characteristics
  - Has a Timken OK Load of 27.2 kg (60 lb)
- Provides exceptional film strength and protection against wear
- Protects against corrosion, rust and oxidation
- Exhibits long-lasting mechanical stability
  - Results in minimal change in consistency even after repetitive shear

##### *Takes the Heat & the Cold*

- Performs well in a broad temperature range
  - Has an operating range of -40°C to 204°C (-40°F to 400°F)
- Demonstrates excellent pumpability for cold weather applications
- Resists high temperatures and protects equipment in elevated temperature applications
- Exhibits high dropping point

#### Available Grades

- NLGI 2



#### Proprietary Additives

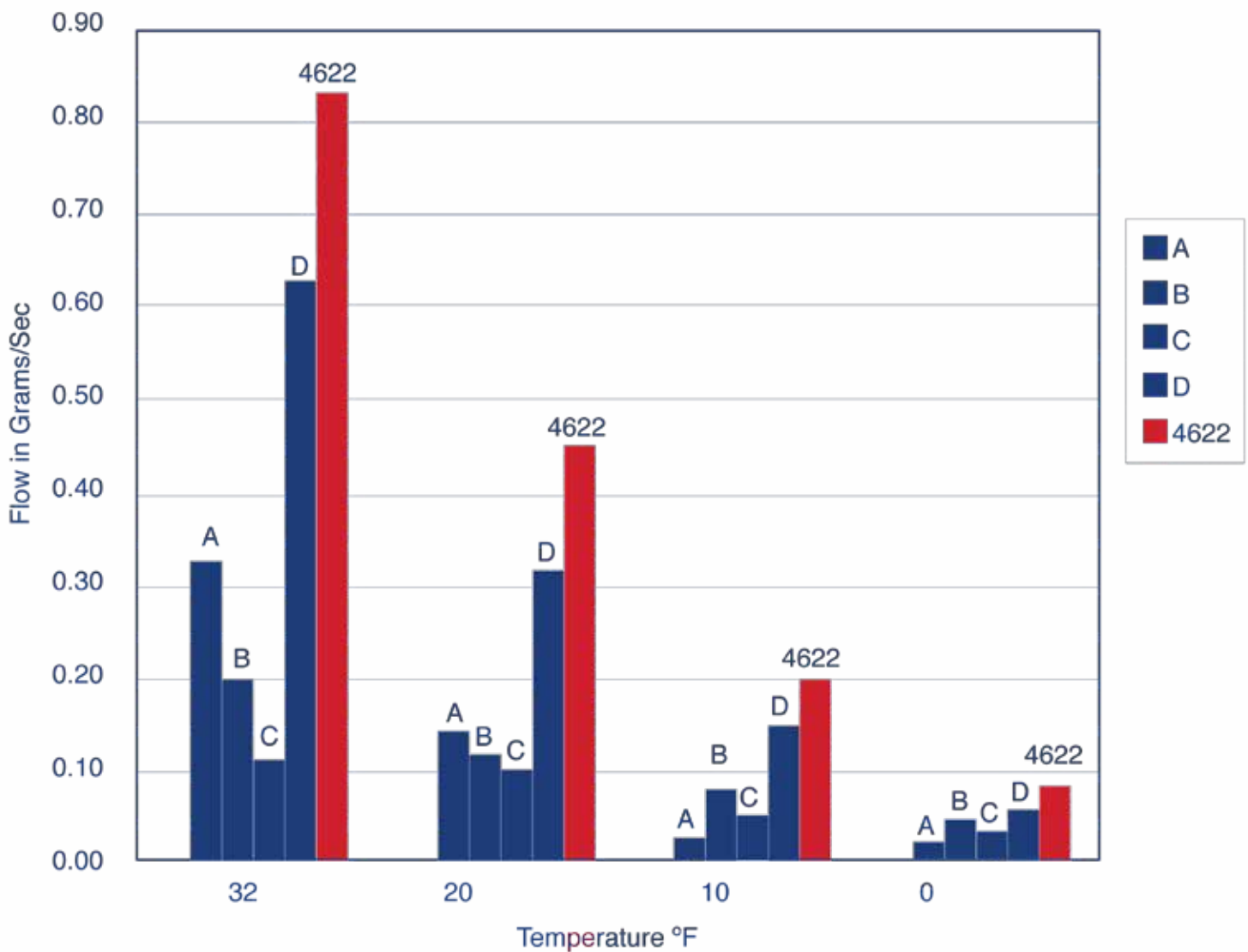
LE's proprietary additives are used exclusively in LE lubricants. Monolec Multiplex Lubricant contains Monolec.

Monolec® wear-reducing additive creates a single molecular lubricating film on metal surfaces, vastly increasing oil film strength without affecting clearances. An invaluable component in LE's engine oils, industrial oils and many of its other lubricants, Monolec allows opposing surfaces to slide by one another, greatly reducing friction, heat and wear.



## Monolec® Multiplex Lubricant Demonstrates Excellent Low-Temp Pumpability in US Steel Grease Mobility Test

The US Steel Grease Mobility Test measures the resistance of grease flow at prescribed temperature and pressure, thereby predicting pumpability characteristics of lubricants under low-temperature operating conditions.



The sample is placed in the pressure cylinder and cold soaked to the prescribed temperature. The flow of grease is started under the selected pressure (usually 150 psi). After the initial flow, sufficient grease is collected to calculate the flow rate in grams of grease per second during a measured amount of time. The higher the flow rate in grams per second, the better the predicted pumpability of the grease.







## Monolec® Multiplex Lubricant

### Performance Requirements Met or Exceeded

- ASTM D4950
- NLGI GC-LB
- SAE J-310

### Typical Applications

- Chassis points, front-axle arrangements, U-joints and wheel bearings in equipment, such as:
  - o Debarkers
  - o Ditching machines
  - o Dump trucks
  - o Forklifts
  - o Front-end loaders
  - o Vehicle fleets
- Plain and anti-friction bearings in a variety of machinery, including:
  - o Conveyors
  - o Electric motors
  - o Fans
- Pillowblock bearings



**4622**

<b>Thickener Type</b>	Lithium-Complex
<b>Texture</b>	Smooth
<b>Color</b>	Red
<b>NLGI Grade</b>	2
<b>Worked 60 Penetration ASTM D217</b>	275
<b>Worked 10K Penetration ASTM D217</b>	+22, +7.9%
<b>Worked 100K Penetration ASTM D217</b>	+43, +15.5%
<b>Dropping Point °C (°F), ASTM D2265</b>	266 (510)
<b>Base Fluid Characteristics</b>	
<b>Viscosity @ 100°C, cSt, ASTM D445</b>	12.00
<b>Viscosity @ 40°C, cSt, ASTM D445</b>	129.4
<b>Corrosion Prevention DI H<sub>2</sub>O, ASTM D1743</b>	Pass
<b>Oil Separation 24 hrs @ 25°C, 1.75 kPa (0.25 psi), % Bleed, ASTM D1742</b>	3.1
<b>Timken OK Load lbs, ASTM D2509</b>	60
<b>Four-Ball EP Weld Point kgf, ASTM D2596</b>	400
<b>Four-Ball EP Load Wear Index kgf, ASTM D2596</b>	59
<b>Four-Ball Wear @ 75°C, 1,200 rpm, 40 kgf, 60 minutes, mm wear, ASTM D2266</b>	0.59
<b>Fretting Wear Protection mg loss, ASTM D4170</b>	7
<b>Low Temp Torque NM, ASTM D4693</b>	14.5
<b>Water Washout % Loss @ 80°C, ASTM D1264</b>	12
<b>High Temperature Life hrs, ASTM D3527</b>	100.3
<b>Leakage Tendencies g, ASTM D4290</b>	6
<b>Elastomer Compatibility ASTM D4289</b>	
<b>CR Elastomer</b>	
Volume Change	Pass
Hardness Change	Pass
<b>NBR-L Elastomer</b>	
Volume Change	Pass
Hardness Change	Pass