



PRODUCT DATA SHEET



MOLYLUBE® COPPER TOOL JOINT COMPOUND

Molylube Copper Tool Joint Compound, commonly known as Molylube Tool Joint Compound A-25, is an aluminum complex thickened tool joint compound. **Molylube Copper Tool Joint Compound** contains Extreme Pressure and anti-wear additives, rust and corrosion inhibitors, a hydrogen sulfide scavenger and lubricating solids for maximum drill pipe thread and collar protection. **Molylube Copper Tool Joint Compound** is easily applied to drill pipe threads and collars at make up. It seals the connections, prevents seizing and galling and ensures low break out torque.

Applications

- ◆ Drill pipe threads and collars, typical applications would include geothermal wells, high angle holes, problem holes involving high temperature, whip stocks and horizontal directional drilling applications
- ◆ Blast hole drill string assembly

Features and Benefits

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|------------------------------|--------------------------------------------------------------------------------------------------------------|
| ◆ Select lubricating solids | Prevents galling, seizing and fretting of threads assuring easy make up and break out. |
| ◆ High temperature thickener | Seals threads, minimizes oil separation and maximizes thread protection when downhole temperatures are high. |
| ◆ Brushable | Allows for easy application. |
| ◆ Adhesive | Stays where applied at make up. Maintains film on threads. |
| ◆ Hydrogen sulfide scavenger | Protects threads against hydrogen sulfide corrosion and prevents deterioration of the lubricant |

General Description

Molylube Copper Tool Joint Compound is a brushable and sprayable, high temperature, Extreme Pressure grease. **Molylube Copper Tool Joint Compound** contains an effective level of moly, graphite and copper lubricating solids, fortified with Extreme Pressure and anti-wear additives and rust and corrosion inhibitor and a hydrogen scavenger to maximize thread protection. **Molylube Copper Tool Joint Compound**'s adhesive properties ensure that the product stays in application during all phases of the drilling operation.

Product No. 301190

MOLYLUBE[®] COPPER TOOL JOINT COMPOUND
TYPICAL PROPERTIES

<u>Product No.</u>	<u>301190</u>
<u>Old Product No.</u>	<u>21020</u>
NLGI Grade	1
Penetration, worked (60 strokes), ASTM D217, mm/10	325
Thickener Type	Aluminum Complex
Viscosity (Base Fluid), ASTM D445	
@ 40°C, cSt	121
@ 100°C, cSt	12.9
Lubricating Solids Type	Copper, Graphite, Mica, MoS ₂
Lubricating Solids, weight %	35
Oil Separation, API Recommended Practice 5A3 Nickel Cone, 24 hours @ 100°C, % loss, volume	2.75
Evaporation, API Recommended Practice 5A3 24 hours @ 100°C, % loss, volume	0.94
Shrinkage, API Recommended Practice 5A3 24 hours @ 100°C, % change, volume	1.64
Coefficient of Friction, Falex Method, average	0.0693
Torque Coefficient (<i>K</i> -factor), ISO 16047	0.166
Coefficient of Friction, ISO 16047	0.123
4-Ball EP Test, ASTM D2596 Weld Load, kg	620
Color	Bronze