



SPECIFICATION SHEET

COPPER JOINT LEAD FREE

Non-Lead/Non-Zinc Thread Compound for Rotary Shouldered Connections

COLOR	Dark copper
PENETRATION	310 - 330 (ASTM D 217)
WEIGHT/GALLON	10.2 pounds/gallon
DROPPING POINT	350°F/177°C (typ)
FLASH POINT	385°F/196°C (min)
BRUSHABLE TO	10°F/-12°C
SERVICE RATING	500°F/260°C
TORQUE FACTOR	1.1 (per API RP 7A1)*
CONTAINS	Copper, graphite and other nonmetallic additives

Copper Joint Lead Free has been developed as an answer to the environmental restrictions and exposure concerns associated with the use of lead and zinc drill collar/tool joint thread compounds. It contains copper flake combined with a proprietary blend of amorphous and synthetic graphites in a high quality lubricating base grease. In addition to the galling and seizing protection provided by the solids, it also contains a soluble extreme pressure package that is surface active (adheres to metal surfaces) and helps to provide the load carrying capability required by the high bearing stresses present in rotary shouldered connections. Copper Joint Lead Free has a torque correction factor of 1.1 (10% additional torque required) which will provide additional resistance to down-hole make-up as compared to lead or zinc compounds. It applies easily in a wide range of temperatures and conditions, is resistant to wash-out and will not harden or bleed excessively in storage.

RECOMMENDED FOR all drilling applications (rotary-shouldered connections). Also effective for use on open gear jackup legs.

*API RP 7A1: "Recommended Practice for Testing of Thread Compound for Rotary Shouldered Connections"
NOTE: Due to operation and equipment variables, this value may require adjustment based on field experience.

A MATERIAL SAFETY DATA SHEET IS AVAILABLE FROM THE MANUFACTURER.
DO NOT USE ON OXYGEN LINES OR IN OXYGEN ENRICHED ATMOSPHERES.