

STEAM CHIEF™

High Temperature Tubing & Casing Thread Sealant



TECHNICAL DATA SHEET

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DESCRIPTION

STEAM CHIEF™ is a high pressure, high temperature thread compound designed to perform in the demanding geothermal and high pressure steam injection well applications. To meet the stringent demands of these applications and stay within current environmental guidelines, two of the solids used in today's market have to be avoided. **STEAM CHIEF** contains no lead or zinc. These solid additives would not offer the environmental health safety requirements nor the high temperature performance required for the severe geothermal applications **STEAM CHIEF** is designed to handle. Problems with zinc and hydrogen gas evolution at temperatures about 65°C (150°F) are evident in the 20 ml maximum allowed in the API Bulletin 5A3 Gas Evolution Test.

STEAM CHIEF contains a high percentage of pure synthetic graphite and additional nonmetallic natural, extreme pressure fillers in a highly refined base grease. A larger range of particle sizes than what is specified in the API 5A3 Bulletin provides a better seal in the thread roots without sacrificing the resistance to galling and wear (film strength) found in good API MODIFIED.

The inherent properties of this package are what allows **STEAM-CHIEF** to withstand the detrimental effects of environments containing carbon dioxide, hydrogen sulphide, extreme temperatures, gas distillates and high moisture.

APPLICATIONS

A pipe thread anti-galling and sealing compound particularly suited to tubing and casing thread designs. Suitable for extreme temperature cycling found in such applications as High Temperature Steam Injection and "huff and puff" oil recovery methods. Recommended for SagD applications.



PRODUCT SPECIFICATIONS

Fluid Type	Highly refined petroleum stock
Density (kg/liter), Typical	1.27
Penetration @ 25°C (ASTM D-217)	290 - 330
Brushability	Below -18°C (0°F)
Oil Separation, Wt. %	3.0 Max.
Volume Percent Solids	30
Weight Percent Solids	0
Salt Fog (20%), 500 hours @ 38°C	No major pitting
Flash Point (ASTM D-92)	> 232°C (450°F)
Copper Strip Corrosion (ASTM D-4048)	1B Max.
4-Ball (ASTM D-2596) Weld Point, kgf	800 Typical
TGA, Percent Wt. Loss	31.81
Gas Evolution, API Bul 5A3	No gas evolved, no zinc
Pressure Test EUE, 8 round threads	+3000 psi
J55 Tubing Test	
Makeup Torque	1750 ft./lbs.
24 hrs. @ 330°C	Brokeout, no galling
Ratio of Breakout to Makeup	2.34
Est. Friction Factor (Relative to API Modified)	0.94

OPERATING RANGE:

-18°C to 982°C (0°F to 1800°F)

PACKAGING

Inventory Code	Container Size	Container
17505	1 U.S. Gallon	Pail
17510	2.5 U.S. Gallon	Pail
17515	5 U.S. Gallon	Pail
17575	50 U.S. Gallon	Drum

LIMITED WARRANTY

Jet-Lube of Canada makes the Limited Express Warranty that at the date of delivery, this product shall be free from defects in Jet-Lube of Canada Ltd. materials and workmanship.

This Limited Express Warranty is expressly in lieu of any other express or implied warranties, including any implied warranty of merchantability or fitness for a particular purpose, and of any other obligation on the part of Jet-Lube of Canada Ltd.

The sole remedy for breach of the Limited Express Warranty shall be the refund of the purchase price. All other liability is negated and disclaimed, and Jet-Lube of Canada Ltd. shall not be liable for incidental or consequential damages.