Tech Data

VULTREX PRODUCTION & DRILLING COMPOUNDS

Introduction

Petro-Canada Lubricants' VULTREX API Modified Thread Compound is a specially formulated lithium grease for the lubrication and sealing of thread connections in oil field applications. VULTREX API Modified Thread Compound protects the threads on casing, tubing connections and line pipe against galling during makeup and breakout. It maintains its product integrity, resisting hardening, drying out, evaporation and oxidation. This metal-based compound conforms to API RP 5A3*. *Please note: VULTREX API Modified Thread Compound is not recommended for rotary shouldered connections, please consider a drilling compound such as VULTREX Tool Joint Compound below.*

VULTREX Tool Joint Compound is an aluminum complex grease which protects the threads on rotary shouldered connections and line piping against galling and provides a positive seal against drilling mud pressure. It conforms to API RP7A1-92.

Features and Benefits

VULTREX TOOL JOINT COMPOUND PROVIDES:

- Superior high pressure sealing against ingress of drilling fluids and mud
 - Extended component life
 - Meets API RP7A1-92 performance requirements

VULTREX API MODIFIED THREAD COMPOUND PROVIDES:

- Excellent thread protection during make-up and disassembly
 - Reduced component damage from galling and seizure
 - · Reduced torque requirements in breaking joints

- Excellent resistance to rust and corrosion
 - Extended thread protection and life in storage and in service which may reduce maintenance costs
 - Resists pitting and discoloration of threaded surfaces during field use and storage
 - Resists water absorption

BOTH VULTREX API MODIFIED THREAD AND VULTREX TOOL JOINT COMPOUNDS PROVIDE:

- Good low temperature handling properties
 - · Ease of application in cold weather
 - Suitable for wide operating temperature range

Applications

Petro-Canada VULTREX Production and Drilling Compounds are suitable for thread protection and connection sealing in all phases of drilling in many types of oil field applications over a wide range of operating conditions.

VULTREX API Modified Thread Compound is recommended for use on the threads of round casings, buttress casings, tubing connections and line piping. It can withstand high pressures (up to 10,000 psi) and can prevent leakage at temperatures greater than 149°C/300°F.

It is not recommended for use on rotary shouldered connections. Do not use VULTREX API Modified Thread Compound on oxygen lines or in oxygen enriched atmospheres.

VULTREX Tool Joint Compound is recommended for use on the threads and shoulders of rotary shouldered tool joints. It is also suitable for use on the threaded connections of most drilling string applications.

*American Petroleum Institute Recommended Practice 5A3: "Recommended Practice on Thread Compounds for Casing, Tubing and Line Pipe": 2nd Ed., July 2003.



Typical Performance Data

| PROPERTY | TEST METHOD | VULTREX API MODIFIED THREAD COMPOUND | VULTREX TOOL JOINT COMPOUND |
|---|----------------|---|--------------------------------|
| Appearance | Visual | Dark copper | Grey |
| Dropping Point, °C /°F | D2265 | 177 / 350 | 196 / 385 |
| Worked Penetration @ 25°C | D217 | 328 | 280 |
| Soap Type | | Lithium | Aluminum Complex |
| Copper Corrosion | D4048 | 1b | 1a |
| Brushing Ability @ -18°C (-1°F) | API RP 5A3 | Pass | Pass |
| Evaporation, % vol fraction loss, 24 h, 100°C | API RP 5A3 | ≤ 0.5 | - |
| Gas evolution, cm ³ , 120 h, 66°C | API RP 5A3 | -2 | - |
| Oil separation, % vol fraction, 24 h, 100°C | API RP 5A3 | < 4.0 | - |
| Water leaching, % mass fraction loss, 2h, 66°C | API RP 5A3 | < 1.0 | - |

The values quoted above are typical of normal production. They do not constitute a specification.

Note that all connection contact surfaces should be clean and free of moisture and contaminants prior to the application of the thread compound to prevent grease compatibility issues.

To order product or to learn more about how Petro-Canada Lubricants can help your business visit: **lubricants.petro-canada.com** or contact us at: **lubecsr@petrocanadalsp.com**



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