

# TIFORA PG



Grease

**Heavy metal free dual purpose grease for protection and 'make-up' of premium tubing/casing.**

## APPLICATIONS

**Threading of casings of oil drilling equipment**

- **TIFORA PG** is an innovative heavy metal-free lubricating grease specifically developed for both protection and "make up" of 'premium' (casing/tubing) connections.
- It can be used to replace the heavy metal API dopes (traditionally leaded) and also conventional protection products used for API connections.
- It may also be used for applications where good anti-seizure properties are required.
- If an anti-corrosion product is demanded, TIFORA PG can be proposed as an alternative, and is particularly suited when in a environment exposed to salt spray, such as on marine and dockyard equipment.
- Always avoid contamination of the grease by dust and/or dirt when applying. Please observe recommendations API RP 5C1 for handling and running.

**Recommendation**

## SPECIFICATIONS

- Approved by: VALLOUREC and MANNESMANN tubes, SUMITOMO.

## ADVANTAGES

**Heavy metal free  
Prevent metal thread  
seizures**

**Antirust properties**

**Cost reduction**

- A single product for both protection and "make up".
- Simplifies inspection.
- Long term protection with enhanced anti-corrosive properties.
- Environmentally safe.
- Storage stability even in hostile environments, (pipe yards, barges, etc...).
- Clean and safe handling
- Easy application (by brush) and removal (solvent, degreaser) within a wide range of temperature.
- Cost saving considering its light density (0,910) and subsequently lower consumption.
- Safe and easy use for both rig staff and repair shop staff .
- Grease without heavy metals (Zn, Cu, Pb) and powdered graphite
- Enhanced anti-rust protection
- Maintains its original consistency without drying out.



TOTAL

TYPICAL CHARACTERISTICS	METHODS	UNITS	TIFORA PG
Soap/thickener		-	Al complex
NLGI grade	ASTM D 217/DIN 51 818	-	1.5
Color	Visual	-	Brown
Appearance	Visual	-	Smooth
Operating temperature range		°C	- 30 - +145
Penetration at 25°C	ASTM D 217/DIN51 818	0.1 mm	280 - 310
Four ball weld load	ASTM D 2596	kgf	620
Anti-rust performance SKF- EMCOR	DIN 51 802/IP220/NFT 60-135/ISO 11007	rating	0 - 0
Dropping point	IP 396/NF T 60102C	°C	> 240
Salt fog test	VALLOUREC	hours	> 1000

Above characteristics are mean values given as an information.

**TOTAL LUBRIFIANTS**

**Industrie & Spécialités**

28-07-2004 (supersedes 20-07-2004)

TIFORA PG

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This lubricant used as recommended and for the application for which it has been designed does not present any particular risk.

A material safety data sheet conforming to the regulations in use in the E.C. can be obtained from your local commercial adviser or down loaded from

[www.quick-fds.com](http://www.quick-fds.com)