

Performance you can trust

BIOGEN® TUFLUBE

Heavy Duty Biodegradable Jacking and Open Gear Grease

Product Overview

ROCOL® BIOGEN TUFLUBE is an extreme heavy duty grease, designed to protect heavily loaded, slow moving mechanisms in the wettest and most corrosive conditions. It is the ideal lubricant to protect jacking and open gear systems in marine, offshore and freshwater environments, where the protection of critical assets is of utmost importance.

BIOGEN TUFLUBE is rated Classification 'E', the highest classification level of the HOCNF system, therefore permitting use in the North Sea. It also meets the requirements of the 2013 Vessel General Permit (VGP).

Features and Benefits

- **EXTREME Pressure:** Unique additive package protects against metal wear.
- **EXTREME Corrosion Protection:** Physical and chemical protection against pitting and corrosion.
- **EXTREME Adhesion:** Blend of Hi-Tac boosters ensures staying power, can even be applied when wet or submerged. BIOGEN TUFLUBE is a tough, tenacious, self-repairing film which maintains a lubricant film on the surface longer than conventional lubricants.
- **EXTREME Temperatures:** Ideal for use in the hottest and coldest global climates.
- **EXTREME Versatility:** Apply by hand or automatic lubrication equipment.

Specifications

- **HOCNF Classification 'E':** Certified for use in the North Sea.
- **VGP Compliant:** Biodegradable, minimally toxic and non-bioaccumulative. Can be used in the waters of the United States of America.

Directions for Storage and Use

- BIOGEN TUFLUBE should be stored in its unopened original container.
- For best practice, storage temperature of BIOGEN TUFLUBE should ideally be controlled to between +1°C and +40°C. However, there will be no detrimental effect when stored within its operating service temperature.
- Shelf life is 3 years from date of manufacture.
- The minimum application temperature for BIOGEN TUFLUBE is 0°C. For best results apply BIOGEN

Typical Applications

Ideal for use when HOCNF (North Sea) or VGP regulations (US Waters) must be met. See www.rocol.com/biogen for further information.

Applications include:

- Jacking Systems
- Open Gears
- Rollers
- Slew Rings
- Cantilevers
- Pins
- Booms
- Winches
- Joints & Couplings
- Penstocks, sluice gates, winding gears on locks and water treatment facilities.
- Most other high load, slow speed mechanisms.

Pack Sizes

| Pack Size | Part Code |
|-----------|-----------|
| 18kg | 18404 |

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FM 12448



EMS 67596



OHS 78173



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| Property | Test Method | Result |
|---|--------------------|------------------------------------|
| Appearance | Visual | Beige grease |
| Base Fluid Type | N/A | Vegetable/Synthetic |
| NLGI No. | IP 50 - ASTM D217 | 2 |
| Base Fluid Viscosity at 40°C | IP71 | 95 cSt |
| Base Fluid Viscosity at 100°C | IP71 | 12.6 cSt |
| Thickener | N/A | Proprietary |
| Drop Point | IP 396 | Non-melting |
| Operating Temperature Range | N/A | -60°C to +170°C |
| Solids | N/A | Blend of high load carrying solids |
| 4-Ball Weld Load | IP239 | 700kg |
| Copper Corrosion Test (24hrs at 100°C) | IP 112 – ASTM D130 | 1B |
| Oil Separation (24hrs at +100°C) | IP 121 | 1% |

Values quoted above are typical and do not constitute a specification.

Safety Data Sheets

Safety data sheets are available for download from our website www.rocol.com or may be obtained from your usual ROCOL contact.

The information in this publication is based on our experience and reports from customers. There are many factors outside our control or knowledge which affect the use and performance of our products, for which reason it is given without responsibility.

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