

# Technical Data

## TUFGEAR UNIVERSAL

### Heavy Duty Open Gear Grease

#### Description

ROCOL® TUFGEAR Universal is a heavy-duty open gear grease containing a blend of high load carrying solids designed for the effective lubrication and protection of gears used in extreme environments.

TUFGEAR Universal is a highly water resistant, long life grease for the lubrication of all types and sizes of open gears. TUFGEAR Universal is a heavy duty, highly adhesive, lubricant ideal for extreme / arduous conditions.

Also available in aerosol form – see ROCOL TUFGEAR Spray.

#### Applications

- Open Gears
- Girth Gears
- Rack & Pinion Gears
- Syncrolifts
- Jacking Systems
- Slew Rings
- Winches
- Joints & Couplings

#### Approvals

- NATO Stock number – 9150 99 701-3540 (5kg)
- NATO Stock number – 9150 99 396-0031 (18kg)
- Hyundai / Kia Group – Rail and Open Gear – GB220200108013062
- Approved for use on TTS Syncroflift

#### Features & Benefits

- Wide temperature range -40°C to +120°C
- Outstanding load carrying capacity, able to cope with extremely high loads with a weld load of 800Kg.
- Non melting grease
- Outstanding corrosion protection, physical and chemical protection against pitting and corrosion.
- Protects against metal wear
- Extremely adhesive, a blend of hi-tac boosters ensures staying power and preventing fling off
- Tough, tenacious, self-repairing film which maintains a lubricant film on the surface longer than conventional lubricants

#### Directions For Use

TUFLUBE ALLWEATHER should be stored in its unopened original container.

For best practice, storage temperature of should be controlled to between +1°C and +40°C.

Shelf life is 4 years from date of manufacture

The minimum application temperature for TUFGEAR Universal is 0°C.

For best results apply to clean gearing.

#### Further Information

For pack sizes, part codes and safety data sheets please visit [www.rocol.com](http://www.rocol.com) or get in touch with our customer service team who will be happy to help: [customer.service@rocol.com](mailto:customer.service@rocol.com)

# Technical Data

## TUFGEAR UNIVERSAL Heavy Duty Open Gear Grease

| Property  | Test Method         | Result                               |
|---|---------------------|--------------------------------------|
| Appearance  | Visual              | Smooth black adhesive grease         |
| NLGI No.  | IP 50 – ASTM D217   | 2                                    |
| Base Type   | N/A                 | Blend of high viscosity mineral oils |
| Base Fluid Viscosity at 40°C  | IP 71               | >1000cSt                             |
| Thickener   | N/A                 | Organically modified clay            |
| Solids  | N/A                 | Blend of high load carrying solids   |
| Temperature Range   | N/A                 | -40°C to +120°C                      |
| 4-Ball Weld Load  | IP 239 – ASTM D2596 | 800kg                                |
| 4-Ball Mean Hertz Load  | IP 239 – ASTM D2596 | 120kg                                |
| Timken 'OK' Load  | IP 326 – ASTM D2509 | 35 lbs                               |
| Mild Steel Corrosion Test 24 hrs at 100°C                             | N/A                 | No stain                             |
| Shear Stability – Roll Stability Change in Worked Penetration at 25°C | ASTM D1831          | +20                                  |
| Copper Corrosion Test   | IP 112 – ASTM D130  | 1a                                   |

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

Issue 3 Date: 11/20

T +44 (0) 113 232 2600 F +44 (0) 113 232 2740  
E customer.service@rocol.com www.rocol.com  
ROCOL House, Swillington, Leeds LS26 8BS

This document contains information based on data that is believed to be correct. However, the product may not be applicable to all uses and operating environments. No warranty or guarantee is expressed or implied.

ROCOL® A division of *ITW* Ltd

