

# 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 Universal 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)

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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.

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