Technical Datasheet

Performance you can trust

RT15

Perfluoropolyether based grease suitable for a wide range of applications

Summary

ROCOL® RT15 is an oxygen compatible lubricant which lengthens relubrication periods dramatically due to its ability to resist degradation in hostile conditions.

ROCOL® RT15 is used in gearboxes, anti-friction and plain bearings, or any sliding surface such as pins, valves, plungers, screws etc. Its resistance against aggressive chemicals and strong oxidising agents makes it a natural choice for use in the chemical, dry cleaning, and related industries.

ROCOL® RT15 is an extreme high load lubricant, for a wide range of aggressive environments, which will not have a detrimental effect on rubbers, plastics or metals.

Features and Benefits

- ROCOL RT15 has an excellent wide temperature range from -20°C to +280°C.
- ROCOL RT15 is an oxygen resistant, non-toxic lubricant with an extremely high oxidation and thermal resistance.
- The product has an exceptionally long service life providing excellent cost effectiveness from extended lubrication intervals, reduced downtime and reduced labour costs.
- ROCOL RT15 has outstanding extreme pressure (EP) performance with a weld load of 620 kg.
- This product is designed primarily for extreme applications in aggressive environments.
- ROCOL RT15 is also used where a long life or a lubricated for life application exists.

Usage and Storage Guidance

- ROCOL RT15 can be applied manually or by other methods suitable for NLGI No. 2 greases.
- ROCOL RT15 is compatible with other perfluoropolyether greases. However, for best results it is recommended that the bearings should be purged of the previous lubricant prior to application.
- If the previous lubricant used was not perfluoropolyether based, it is important to ensure that the bearings are fully cleaned with a suitable solvent, for example ROCOL INDUSTRIAL CLEANER Rapid Dry Spray, before charging with ROCOL RT15.
- On bolted joints, apply thin film to threads, nut/bolt bearing faces and washers (if used).
- The storage temperature should be controlled between +1°C and +40°C.
- Shelf life is 5 years from date of manufacture.

Approvals and Certifications

DTD 900/6081 (AFS 1736A)
NATO 9150-99-225-0924

Pack Sizes

Part Code	Pack Size
39041	100g
39043	400g

T +44 (0) 113 232 2600
E customer.service@rocol.com

www.rocol.com

bsi ISO 9001 Quality Management Systems CERTIFIED | AS/EN 9100 Aviation Space and Defence CERTIFIED | ISO 14001 Environmental Management CERTIFIED | ISO/IEC 27001 Information Security Management CERTIFIED | ISO 45001 Occupational Health and Safety Management CERTIFIED

ROCOL A Division of ITW Limited
ROCOL House, Swillington, Leeds, LS26 8BS, UK
VAT Number: 742053167
Registered Company No: 00559693
Registered Office: Saxon House, 2-4 Victoria Street, Windsor, England, SL4 1EN

Technical Datasheet

Performance you can trust

RT15

Perfluoropolyether based grease suitable for a wide range of applications

Parameter	Test Method	Value
Appearance	Visual	Soft white grease
NLGI Number	IP 50 (ASTM D217)	2
Base Type	N/A	Perfluoropolyether
Base Fluid Viscosity at 20°C	IP 71	1000 – 2000cSt
Thickener	N/A	PTFE
Temperature Range	N/A	-20°C to +280°C
4-Ball weld Load	IP 239 (ASTM D2596)	620kg
Specific Gravity	N/A	1.91
B.A.M. Oxygen Impact Test – Limit Pressure	N/A	130 bar at 60°C
Solvent Resistance	N/A	Most solvents
Chemical Resistance	N/A	Most acids
Soluble in:	N/A	Fluorinated solvents

Safety Datasheets

These are available at https://www.rocol.com/datasheets. For further assistance, please contact us via the ROCOL website or using the details below.

Note

The information in this Technical Datasheet is informed by our experience and feedback from industry. There are many variables outside our control or knowledge which affect the use and performance of our products, for which reason it is given without responsibility. Values quoted are typical and do not constitute a specification.

If you'd like to discuss the suitability of any ROCOL solution for your system, please get in touch.

T +44 (0) 113 232 2600
E customer.service@rocol.com

www.rocol.com

ROCOL A Division of ITW Limited
ROCOL House, Swillington, Leeds, LS26 8BS, UK
VAT Number: 742053167
Registered Company No: 00559693
Registered Office: Saxon House, 2-4 Victoria Street, Windsor, England, SL4 1EN

Revision Date: 0126 Template: 2507

Technical Datasheet

Performance you can trust

RT15

Perfluoropolyether based grease suitable for a wide range of applications

Torque Setting for Threaded Fasteners

When a thread compound is applied to a fastener that will be torque tightened, the torque setting will require adjustment to achieve the correct tension in the fastener. Correct torque settings can be calculated using the methods below.
The following parameters were derived from the tension-torsion relationship measured on M12 x 50mm setscrews with 1.75mm thread pitch, full nut and Form A washers. Fasteners were degreased and a thin layer of thread compound applied to threads, nut face and washers. Data are for fasteners at 75% rated yield stress:

Fastener Material	Coefficient of Friction (μ)	K-Factor
A2-70 Stainless Steel	0.156	0.20
A4-80 Stainless Steel	0.171	0.22

$$T = F \times \left[(0.159 \times P) + (0.577 \times d \times \mu) + (D_f \times \frac{\mu}{2})\right]$$

T = Torque Applied (Nm)
F = Tension Generated in Fastener (N)
P = Thread Pitch (m)
d = Pitch Diameter (m)
D_f = Nut Friction Diameter (m)
μ = Coefficient of Friction

$$T = K \times F \times D$$

T = Torque Applied (Nm)
F = Tension Generated in Fastener (N)
D = Nut Nominal Bolt Diameter (m)
K = K-Factor

Many parameters affect the tension-torsion relationship of fasteners, including Bolt geometry, surface finish, lubricant application method, joint material, torque application method, variation in fastener manufacture etc. Therefore, these parameters above are for guidance only, especially if a different material is used or if geometry is significantly different to M12. Any calculated values are a predictive tool, and the final tension should be verified, especially in critical applications. These values do not constitute a specification.

For further guidance, please speak to your usual ROCOL contact or technical.lubricants@rocol.com.

T +44 (0) 113 232 2600
E customer.service@rocol.com

www.rocol.com

ROCOL A Division of ITW Limited
ROCOL House, Swillington, Leeds, LS26 8BS, UK
VAT Number: 742053167
Registered Company No: 00559693
Registered Office: Saxon House, 2-4 Victoria Street, Windsor, England, SL4 1EN