Technical Datasheet

Performance you can trust

BG211

Multi-purpose, water resistant, extreme pressure (EP) bearing grease

Summary

ROCOL® BG211 is a high performance, Extreme Pressure, water resistant bearing grease designed for the effective lubrication and protection of all types of ball, roller and plain bearings.

ROCOL BG211 is ideal for applications subjected to damp, humid or wet conditions including submerged conditions, including salt water.

ROCOL BG211 excels in applications such as scrapers, rakes, dockside cranes, water pumps, boat trailers and similar applications where bearings, pins, bushes, slides etc are subjected to extreme wet conditions.

Features and Benefits

- Very good temperature resistance – ranging from -30°C to +110°C (120°C for short periods).
- Excellent resistance to water, including salt water, ensuring components is protected even in submerged conditions.
- Calcium soap technology and EP additives provides good high load performance superior to standard soap thickened lubricants.
- BG211 has good oxidation resistance, extending lubrication intervals whilst reducing equipment failure, downtime and lubricant usage.
- Excellent corrosion resistance to protect in humid, damp and even wet conditions.
- The tacky nature of ROCOL BG211 ensures it adheres strongly to the components to resist water wash-off and even tidal flow in salt water environments.

Usage and Storage Guidance

- ROCOL BG211 can be applied manually, by grease gun, keg pump or by other methods suitable for an NLGI No. 2 grease.
- Compatible with other calcium soap thickened greases. However, for best results the previous lubricant should be removed prior to application.
- On bolted joints, apply thin film to threads, nut/bolt bearing faces and washers (if used)

Storage Guidance

- The storage temperature should be controlled between +1°C and +40°C.
- Shelf life is 4 years from date of manufacture.

Approvals and Certifications

JSD XG-286
DEF STAN 91-34/4
NATO G-460
NATO Stock Number 9150-99-224-8885

Pack Sizes

Part Code	Pack Size
12159	180kg

Other sizes available from our distributor Silmid

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www.rocol.com

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ISO/IEC 27001 Information Security Management CERTIFIED
ISO 45001 Occupational Health and Safety Management CERTIFIED

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Parameter	Test Method	Value
Appearance	Visual	Brown grease
NLGI No.	IP 50 - ASTM D217	2
Base Type	N/A	Severely refined mineral oil
Base Fluid Viscosity at 40°C	IP 71	110cSt
Base Fluid Viscosity at 100°C	IP 71	8.5cSt
Thickener	N/A	Calcium soap
Temperature Range	N/A	-30°C to +110°C (+120°C short periods)
Emcor Corrosion Test	IP 220	0:0
Copper Corrosion Test	IP 112 - ASTM D130	1a
Water Washout Test	IP 215 - ASTM D1264	3%

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.

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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
8.8 Steel Plain Finish	0.148	0.19
A2-70 Stainless Steel	0.196	0.25

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

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.

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