Product Data

Castrol Molub-Alloy 4086

High performance bearing grease

Description

Castrol Molub-Alloy™ 4086 high performance bearing grease is a heavy duty all-weather grease manufactured from high quality components, carefully selected for their compatibility with Molub-Alloy lubricating solids. Molub-Alloy 4086 has good film strength and is formulated to protect against friction and wear under heavy loading due to a proprietary blend of Molub-Alloy solid lubricants.

Application

Castrol Molub-Alloy 4086 is designed for industries with applications most commonly requiring the heavy duty, all weather capabilities of this range including steel, mining, logging, chemical, and construction. It is particularly useful where conditions require sealing against outside contaminants such as dust and water.

Molub-Alloy 4086 range operates effectively in plain, journal, and antifriction bearings. They exhibit adhesive and cohesive characteristics and are resistant to mechanical shearing. Typical applications are in ball and roller bearings, bushings, slides, screws, and general lubrication where loads may be heavy and speeds low.

Molub-Alloy 4086 bearing grease can be applied by any standard grease dispensing method.

Advantages

- Excellent friction reduction characteristics due to Molub-Alloy solid lubricants – easier start-up, reduced heat, and reduced energy leading to longer bearing life
- Excellent EP and anti-wear properties – protects equipment against extreme/shock loading and helps minimise bearing component wear and hence extends equipment life
- Excellent mechanical stability and adhesion – the grease keeps its consistency in service ensuring long term protection and reduced consumption as film stays between lubricated surfaces
- Good water resistance – the coating film stays on the surface in the presence of water; even when exposed to the action of hot and chemically active process water
- Outstanding oxidation and thermal stability – provides reliable performance and extended lubricant life in high temperature applications

Typical Characteristics

Test	Method	Units	4086-0	4086-1	4086-2	4086/320-1	4086/460-2
Appearance, Visual	-	-	Dark grey	Dark grey	Dark grey	Dark grey	Dark grey
Thickener Type	-	-	Lithium complex	Lithium complex	Lithium complex	Lithium complex	Lithium Complex
Base Oil Type	-	-	Mineral oil	Mineral oil	Mineral oil	Mineral oil	Mineral oil
NLGI Grade	-	-	0	1	2	1	2
Density @ 20°C/68°F	ASTM D1475	g/ml	0.94	0.89	0.89	0.886	0.896
Worked Penetration, 60 Strokes @ 25°C/77°F	ISO 2137 ASTM D217	0.1mm	355-385	310-340	265-295	310-340	265-295
Worked Penetration, 100,000 Strokes @ 25°C/77°F, change from 60 Strokes	ISO 2137 ASTM D217	0.1 mm	20	15	15	20	15
Dropping Point	ISO 2176 ASTM D2265	°C/°F	260+/500+	260+/500+	260+/500+	260+/500+	260+/500+
Base Oil Viscosity @ 40°C/104°F @ 100°C/212°F	ISO 3104 ASTM D445	mm^2/s	 164 12.3	 164 12.3	 164 12.3	 316 23.2	 454 29.6
Rust Test, 48 hrs @ 52°C/126°F	ASTM D1743	Rating	Pass	Pass	Pass	Pass	Pass
Copper Corrosion, 24 hrs, 100°C/212°F	ISO 2160 ASTM D4048	Rating	1b	1b	1b	1b	1b
Four Ball EP Test Load Wear Index Weld Load	ASTM D2596	kg	 50 315	 65 400	 65 400	 60 400	 60 400
Four Ball Wear Test (1 hr, 20 kg, 1800 rpm, 54°C/130°F), Scar Diameter	ASTM D2266	mm	0.5	0.45	0.45	0.45	0.45
Timken EP Test, OK Load	ASTM D2509 IP 326	kgs/lbs	25/55	27/60	27/60	27/60	29.5/65
Water Washout @ 79°C/175°F	ASTM D1264	% loss	-	5	5	6	4
Roll Stability, 2 hours, 25°C/77°F, Penetration Change	ASTM D1831	% change	5	5	5	6	4
Pressure Oil Separation (Cake Penetration)	US Steel	% change	14.25	-	-	-	-
Grease Mobility	US Steel	Grams/sec	0.2 @ 0°F	-	-	-	-
Lincoln Ventmeter	US Steel	psi	400 @ -20°F	400 @ 10°F	400 @ 20°F	580 @ 0°F	475 @ +30°F
ISO Classification	ISO 6743/9	-	-	-	-	L-XCDEB 1	L-XBDEB 2

Subject to usual manufacturing tolerances.

Additional Information

In order to minimise potential incompatibilities when converting to a new grease, all previous lubricant should be removed as much as possible prior to operation. During initial operation, relubrication intervals should be monitored closely to ensure all previous lubricant is purged.

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