



Molub-Alloy 6040

EP Greases

Description

CASTROL MOLUB-ALLOY™ 6040 greases are extreme pressure (EP) multi-service lubricants designed to give outstanding performance in a wide variety of applications. It may be used in either journal or antifriction bearings in the most demanding industrial applications under extreme environmental conditions.

- CASTROL MOLUB-ALLOY 6040 is manufactured from the highest quality petroleum oil and thickened with a unique calcium complex sulfonate unsurpassed for mechanical shear stability. CASTROL MOLUB-ALLOY 6040 greases are compounded with chemical additives for EP characteristics and with select CASTROL MOLUB-ALLOY lubricating additives for thin-film, high-pressure anti-wear protection. It is also inhibited against high temperature oxidation and corrosion.
- The results of the CASTROL MOLUB-ALLOY additives can be compared with a rolling process in the micro-range. The surface roughnesses are gradually leveled and smoothed.
- Through smoothing of the working surfaces, the loads are distributed over increasing areas and the actual load carrying areas are enlarged.
- During the running-in process, the additive package creates optimum smooth contact surfaces.
- If, because of shock loads or stop-and-go operation, surface roughness peaks redevelop, the additive package is automatically reactivated. Surface roughness is again equalized and lubrication optimized.
- Corrosion and oxidation inhibitors maximize effective rust protection and long grease life.
- Operating temperature range of -40°C to +140°C

Application

Typical applications for CASTROL MOLUB-ALLOY 6040 greases are bearings that are under heavy water contamination.

Advantages

- The load carrying and anti-wear capabilities of CASTROL MOLUB-ALLOY® 6040 exceed conventional complex greases.
- CASTROL MOLUB-ALLOY 6040 multi-service greases offer excellent oxidation resistance and resist washing out, even under adverse water contamination. This product has been designed to work with aggressive process waters.
- Reduced friction due to the effect of the CASTROL MOLUB-ALLOY® additives is most evident under boundary and mixed-film lubrication conditions. This benefit is most pronounced where frequent start up, slow speeds or high and unexpected heavy loads are encountered.
- Overall savings are derived from the above and result from less labor and downtime, smoother, more efficient operation with longer parts life and extended lubrication cycles.

Typical Characteristics

Name	Method	Units	6040/150-2	6040/460-1.5
Consistency	ISO 2137 / ASTM D217	NLGI Grade	2	1.5
ISO Viscosity	-	-	150	460
Colour	Visual	-	Amber	Amber
Thickener type	-	-	Calcium Sulfonate	Calcium Sulfonate
Unworked Penetration	ASTM D217 / IP 50	0.1 mm	265-295	280-320
Worked Penetration (60 strokes @ 25°C)	ISO 2137 / ASTM D217	0.1 mm	293	295
Worked Penetration (100,000 strokes @ 25°C) - change from 60 strokes	ISO 2137 / ASTM D217	0.1 mm	-5	-3
Dropping point	ASTM D2265	°C	260	288
Base Oil Viscosity @ 40°C	ISO 3104 / ASTM D445	mm ² /s	150	460
Base Oil Viscosity @ 100°C	ISO 3104 / ASTM D445	mm ² /s	14.4	30.1
Flash Point - open cup method	ISO 2592 / ASTM D92	°C	260	288
Timken OK Load	ASTM D2509	kg / lbs	22.7 / 50	29.5 / 65
Water Wash-out	ISO 11009 / ASTM D1264	% wt loss	3.2	1.8
Four Ball Weld Load test - Weld Point	ISO 11008 / ASTM D2596	kgf	400	500
Four Ball Wear test - Wear Scar Diameter (40 kgf / 75°C / 1800 rpm / 1 hr)	ISO 51350 / ASTM D2266	mm	0.4	0.6
Copper Corrosion (24 hrs, 100°C)	ASTM D4048	Rating	1b	1b
Oil Separation (24 hrs, 0.25 psi, 25°C / 77°F)	ASTM D1742	% wt	2.0	0
Roll Stability test - Shear Stability	ASTM D1831	0.1 mm	1.4	0
Oxidation Stability - Rotating Pressure Vessel test	ASTM D942 / DIN 51808	pressure drop psi	6.5	6.5

Additional Information

- CASTROL MOLUB-ALLOY® 6040 greases should not be mixed with greases using a different thickener.
- Relubrication intervals should be increased gradually to insure complete removal of previous lubricant and to use the additives to their full advantages.
- CASTROL MOLUB-ALLOY® 6040 greases can be applied with grease guns or automatic dispensing systems.

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