

Molub-Alloy 777 ES

High performance grease

Description

Molub-Alloy 777 ES greases are designed for very heavy duty service in adverse environments. They are blended and compounded to withstand heavy and shock loading, commonly found in the steel/ primary metals, construction, mining, and forest products industries.

Molub-Alloy 777 ES greases are made using a blend of high quality petroleum oils, polymers and a proprietary blend of Molub-Alloy lubricating solids. These lubricating solids work synergistically with chemical anti-wear and extreme pressure (EP) additives to reduce contact temperatures and wear while providing the ultimate in extreme pressure and shock load anti-weld protection. This blend together with a shear stable thickening system provides a uniquely effective seal against loss of grease or contamination from the atmosphere, even where mechanical seals may be damaged. Rust and oxidation inhibiting characteristics are maximised to afford effective rust protection and long life of the grease.

Application

Molub-Alloy 777 ES are multi-purpose greases that operate effectively in plain/ journal and anti-friction bearings. They exhibit excellent adhesive and cohesive characteristics and are highly resistant to mechanical shearing.

Typical applications include ball and roller bearings, bushings, slides, screws and general lubrication where loads may be heavy and speeds low. Industries most commonly requiring the heavy duty, all weather capabilities of Molub-Alloy 777 ES greases include steel, mining, logging, chemical, and construction.

Molub-Alloy 777 ES 1 and 2 are Bucyrus certified greases (with lubricating solids <5% by weight and <10 µm max particle size).

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 mechanical stability – grease keeps its consistency in service ensuring long term protection
- Easily pumpable in central lubrication systems
- Superior adhesion – continuous lubrication and reduced consumption as the film stays between lubricated surfaces
- Exceptional water resistance – coating film stays on the surface even in the presence of water
- Resistant to copper and steel corrosion – extends bearing life and performance
- Excellent EP and anti-wear properties – protects equipment against extreme/ shock loading and helps minimise bearing components wear and hence extends equipment life
- Compounded – optimum protection and long life to seals, as well as forming a protective barrier in damaged seals

Typical Characteristics

Tests	Methods	Units	777-1 ES	777-2 ES
Appearance	Visual	-	Dark grey	Dark grey
Thickener	-	-	Lithium	Lithium
Base oil	-	-	Mineral	Mineral
NLGI grade	-	-	1	2
Worked penetration, 60 strokes, 25°C	ASTM D217	0.1 mm	310-340	265-295
Worked penetration, 100,000 strokes, 25°C, change from 60 strokes	ASTM D217	0.1 mm	20	22
Drop point	ASTM D2265	°C	180	180
Base oil viscosity @ 40°C @ 100°C	ASTM D445	mm ² /s	950 85.5	950 85.5
Base oil flash point	ASTM D92	°C	230	230
Rust test, 48 hrs, 52°C	ASTM D1743	-	Pass	Pass
Corrosion protection (SKF Emscor)	ASTM D6138	-	0/0	0/0
Copper corrosion, 24 hrs, 100°C	ASTM D4048	-	1b	1b
Four ball EP test Load wear index Weld load	ASTM D2596	kg	100+ 620	100+ 620
Four ball wear test, 1hr, 40 kg, 1200 rpm, 75°C scar diameter	ASTM D2266	mm	0.45	0.55
Four ball wear test, 1000N, 1 min scar diameter	DIN 51350-5E	mm	0.90	0.90
Timken EP test, OK load	ASTM D2509	kg	23	23
Water washout @ 38°C @ 79°C	ASTM D1264	% loss	3.8 5.4	1.6 3.2
Water resistance, 90°C, 3hrs	DIN 51807-1	-	1	1
Roll stability, 2 hrs, 25°C, penetration	ASTM D1831	% change	10	5
Wheel bearing test, 6 hrs, 104°C	ASTM D1263	% loss	6.58	0.06
Pressure oil separation	US Steel	% change	2.13	1.79
Grease mobility	US Steel	g/s	0.1 @ 30°F	0.3 @ 0°F
Pumpability by Lincoln ventmeter	US Steel	psi	480 @ 30°F	520 @ 20°F
DIN classification	DIN 51502	-	KPF1K-30	KPF1K-20
ISO classification	ISO 6743/9	-	L-XCCHB-1	L-XBCHB-2

The above figures are typical of those obtained with normal production tolerance and do not constitute a specification.

Storage

All packages should be stored under cover.

Products should not be stored above 60°C, exposed to hot sun or freezing conditions.

Castrol Molub-Alloy 777-2 ES

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