

TECHNICAL DATA SHEET

OMCO-EP-M

Product Description and Intended Use

OMCO-EP-M is a new technology, wide temperature range, high performance premium grease. It contains no heavy metals or other harmful or environmentally undesirable additives such as sulfur, phosphorus, chlorine, zinc, phenols, antimony, barium or lead.

Mechanical Stability

The mechanical stability of OMCO-EP-M is outstanding. Tests in the ASTM grease worker show no change in consistency after 100,000 strokes or any sign of breakdown in the roll stability. The roll stability (D-1831) test was modified from six hours at room temperature to 100 hours at 150°F to increase the severity and again, no significant softening was observed.

Load Carrying Ability

OMCO-EP-M has excellent EP properties. Timken values of 65 pounds OK load, LWI of 65 kg and weld point of 500 kg are typical, while 4 Ball Wear performance is equally outstanding.

Thermal Stability

High temperature performance of OMCO-EP-M is excellent in all areas tested.

1. Dropping point - OMCO-EP-M does not become fluid at temperatures approaching 600°F and after cooling to room temperature, it returns to its original grease structure.
2. Wheel bearing leakage (D-1263)- In this test, modified at 325°F, OMCO-EP-M shows no leakage, hardening or other signs of failure.

Oxidation Stability

Bomb oxidation stability (D-942) - psi drop of 2 after 500 hours and 9 psi after 1,000 hours, reflect the excellent resistance of OMCO-EP-M to oxidation, outperforming other premium greases.

Resistance to Water

1. Work stability with water - in a variation of the ASTM work stability test, OMCO-EP-M was mixed with 50% water and after working 100,000 strokes, remained virtually unchanged in consistency, unlike other premium greases which tend to slump or break down.
2. Water resistance - in this test, OMCO-EP-M is reported to show excellent adhesion, high water absorption and no sign of breakdown.
3. Water washout (D-1264) - here again, OMCO-EP-M compares favorably to other premium greases.

Corrosion Resistance

OMCO-EP-M provides excellent corrosion protection. OMCO-EP-M passed 4000 hours through the vigorous Salt Spray Life and the Salt Water Soak Life Test. OMCO-EP-M easily passes ASTM D 1743 Bearing Corrosion Test. In a more severe variation of this test, incorporating synthetic seawater, OMCO-EP-M passes with a 1,1,1 rating. Continued testing following the Emcore Test, a dynamic anti-rust test, OMCO-EP-M showed no signs of corrosion with a 0,0 rating.

Salt Fog Test

ASTM B 117: 5% Salt Fog @ 100°F, 5 mils on Q-Panel type S. Soak Test: 5 mils on Q-Panel type S, submerged 50% in a 5% salt solution at room temperature.

Low Temperature Performance

OMCO-EP-M as a low temperature grease also performs well over a wide temperature range. OMCO-EP-M has been tested for low temperature performance with very good results. U.S. Steel Mobility Test - this is a measure of pumpability and OMCO-EP-M shows good pumpability (U.S. Steel Mobility @ 0°F, 0.12 grams per second)

Product Specifications - Typical

NLGI Grade	2
Worked Penetration, 77°F, ASTM D-217	
60 strokes.....	270
10,000 strokes change from 60 strokes.....	±1
100,000 strokes change from 60 strokes.....	±2
Dropping Point, °F(°C) Min, ASTM D-2265.....	572(300)
Rust Prevention, ASTM D-1743	Pass
Oxidation Stability, PSI Loss, ASTM D-942	
100 hours	0
500 hours	2
1000 hours	9
Roll Stability, Penetration Change, ASTM D-1831	+2
Oil Separation, 24 hrs @ 25°C (77°F), ASTM D-1742	0.17
Four Ball EP, Weld Point, kg ASTM D-2596.....	500
Four Ball EP, Load Wear Index, kg, ASTM D-2596.....	65
Four Ball Wear, Scar mm, ASTM D-2266.....	0.39
Timken OK Load, lb, ASTM D-2509.....	65
Salt Fog, hrs, ASTM B-117	4000
Water Washout, % loss	2.75
Wheel Bearing Leakage, % loss, gms, ASTM D-1263	0.4
Fretting Wear Protection, mgs loss, ASTM D-4170	
Ambient Temperature	2.50
@0°F	6.20
Base Oil Characteristics	
Viscosities:	
@ 210°F,SUS.....	85
@ 100°F,SUS.....	1100
Viscosity Index, Min.	95
Pour Point, °F.....	5