

TECHNICAL DATA SHEET

OMCO-EP-H

Product Description and Intended Use

OMCO-EP-H is a unique lubricating grease utilizing an entirely new approach in thickener technology. OMCO-EP-H provides exceptional lubricity, thermal stability, rust protection, and water washout resistance. Its mechanical stability surpasses conventional greases and makes it ideal for use in continual high load and high temperature applications. It contains no heavy metals or other environmentally undesirable components.

Mechanical Stability

The mechanical stability of OMCO-EP-H is outstanding. Tests in the ASTM grease worker show virtually no change in consistency after 100,000 strokes, in addition, no significant change was observed in the conventional Shell Roll Test (D-1832). The Shell Roll test was modified from six hours at room temperature to 100 hours at 150°F, to increase the severity and again, no softening was observed.

Load Carrying Ability

OMCO-EP-H has excellent EP properties. Timken values of 65 pounds OK load, LWI of 65 kg and weld point of 500 kg are typical for OMCO-EP-H. Four Ball Wear tests (D-2266) also demonstrate the excellent lubricity of this product.

Thermal Stability

High temperature performance of OMCO-EP-H is superior in all areas tested.

1. Dropping Point - OMCO-EP-H will not become pourable until temperatures approaching 600°F are reached. After cooling to room temperature, it returns to its original grease structure, unlike some lithium complex, polyurea, calcium complex and clay greases.
2. Wheel Bearing Leakage (D-1263) - in this test, modified at 325°F, OMCO-EP-H shows no leakage, hardening or other signs of failure and is comparable to other premium greases.
3. Lubrication Life (D-3336) - OMCO-EP-H exhibited outstanding performance in this test. A more severe version (run @ 325°F) showed even more impressive results (600 hours).

Oxidation Stability

Bomb oxidation stability tests (D-942) produced pressure drops of only 2 PSI after 500 hours and 9 PSI after 1,000 hours. These values reflect the excellent resistance of OMCO-EP-H to oxidation. In a specially set up modification of GM 9075-D, panels were coated with grease and exposed in an oven at 300°F for one week - other premium greases showed coking and turned into hard crusty substances, whereas Alpha OMCO-EP-H retained its soft, greasy texture.

Resistance to Water

1. Work stability with water - In a variation of the ASTM work stability test, OMCO-EP-H was mixed with 50% water and after working 100,000 strokes, remained virtually unchanged in consistency. Other premium greases run in this test tend to slump or break down.
2. Water resistance - OMCO-EP-H has exhibited excellent adhesion, high water absorption and no sign of breakdown.
3. Water Washout (ASTM D-1264) - OMCO-EP-H compares favorable to other greases in this test.

Corrosion Resistance

In the Rust Test Rating (ASTM D-1743) OMCO-EP-H passes this test and is equivalent to other premium greases. In a more severe version of this test, modified with synthetic seawater, OMCO-EP-H still gives a pass rating.

Product Specifications - Typical

NLGI Grade.....	2
Worked Penetration, 77°F, ASTM D-217	
60 strokes	270
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	+5
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
Water Washout, % loss @ 79°C (175°F), ASTM D-1264	2.75
Wheel Bearing Leakage, % loss, gms, ASTM D-1263	0.4
Base Oil Characteristics	
Viscosities:	
@ 210°F,SUS.....	156
@ 100°F,SUS.....	2600
Viscosity Index,.....	>100
Pour Point, °F	+5