

Mobilgrease 28

Synthetic Lubricating Grease



Description

Mobilgrease 28 is manufactured from a synthesized hydrocarbon fluid and a nonsoap thickener. Its consistency is between an NLGI No. 1 and No. 2 grease. It offers outstanding performance over wide temperature ranges, with the excellent retention and resistance to high-temperature degradation. In addition, it resists water washing, provides superior load-carrying ability, reduces frictional drag, and prevents excessive wear.

Mobilgrease 28 exceeds the requirements of U.S. Military Specification MIL-G-81322E Grease (Grade A), General-Purpose, Aircraft, and meets the requirements of U.S. Military Specification DOD-G-24508A (Navy) for shipboard auxiliary machinery. It can be designated U.S. Military Symbol WTR and NATO Symbol G-395.

Other tests show that Mobilgrease 28 prevents friction oxidation (fretting) and lubricates rolling element bearings under conditions of high speeds and temperatures. It has also shown superior ability to lubricate heavily loaded sliding mechanisms, such as wing flap screwjacks.

Application

Mobilgrease 28 is designed for the lubrication of plain and rolling bearings at low to high speeds, and splines, screws, worm gears, and other mechanisms where high friction reduction, low wear, and low lubricant friction losses are required. It provides minimum resistance to starting at extreme low temperatures (down to $-54^{\circ}\text{C}/-65^{\circ}\text{F}$), as well as low running torque.

Mobilgrease 28 is recommended for use in landing wheel assemblies, control systems and actuators, screwjacks, servo devices, sealed-bearing motors, oscillating bearings, and helicopter rotor bearings on military and civil aircraft

Characteristics	Mobilgrease 28
Thickener	Type Nonsoap
Fluid Type	Synthetic Hydrocarbon
Color, Visual	Dark Red
Structure	Smooth, Buttery
Penetration, ASTM D 217, 25°C (77°F),	
60 Strokes	305
100,000 Strokes	310
Dropping Point, °C (°F), ASTM D 566, IP	
132	232 (450)
Corrosion Prevention, ASTM D 1743	Pass
Load Wear Index, ASTM D 2596, kg	30
Copper Corrosion, ASTM D 130, 24 hr at 100°C (212°F)	None
Water Washout, ASTM D 1264, 38°C (100°F)	1
Four-Ball Wear Test, 40 kg at 75°C (167°F),	
1200 rpm, 1 hr, Scar Diam, mm, ASTM D 2266, max	1.30
Evaporation Loss, ASTM D 972,	
22 hr at 177°C (350°F), wt %	10

and on naval shipboard auxiliary machinery. It also can be used where superseded specifications MIL-G-81322 (WP), MIL-G-7711A, MIL-G-3545B, and MIL-G-25760A may be called for. Mobilgrease 28 also is recommended for industrial lubrication, including sealed or repackable ball and roller bearings wherever extreme temperature conditions, high speeds, or water washing resistance are factors. Typical applications include conveyor bearings, small alternator bearings operating at temperatures near 177° C (350° F), high-speed miniature ball bearings, and bearing situations where oscillatory motion, vibration, and fretting create problems.

Characteristics

Physical characteristics are listed in the table. Values not shown as maximum or minimum are typical and may vary slightly. In addition, pertinent test properties are given to exhibit performance characteristics of the grease.

Advantages

- Improved friction reduction
- Low wear rates
- Low lubricant drag
- Wide temperature range
- High thermal stability
- Compatibility with mineral-oil-base greases
- Extreme-pressure characteristics
- High resistance to water washing

Health and Safety

Based on available toxicological information, it has been determined that this product poses no significant health risk when used and handled properly. Information on use and handling, as well as health and safety information, can be found in the Material Safety Data Sheet which can be obtained from your local distributor; via the Internet on <http://www.exxonmobil.com>; or by calling 1-800-662-4525 and selecting prompt 2.

For additional technical information or to identify the nearest U.S. ExxonMobil supply source, call 1-800-662-4525.

Characteristics Cont.	Mobilgrease 28
Oil Separation, 30 hr at 177°C (350°F), vol %	5
Low Temperature Torque, ASTM D 1478, -54°C (-65°F), after 100,000 Strokes,	
Starting/Running, g-cm	10,000/1,000
Rubber Swell, FTM 3603, L Type Synthetic	
1 week at 70°C (158°F), vol %	6