



TECHNICAL DATA SHEET

ONYX™ HEAVY DUTY GREASE

Onyx™ is a lubricating grease designed for use in heavily loaded, slow moving bearings, especially those exposed to water.

The thickener used in Onyx™ is calcium sulfonate complex, which provides excellent performance in the presence of water or steam. If water gets churned into the grease, Onyx™ will resist breaking down and flowing out of the bearing. It will continue to lubricate under conditions that would turn conventional greases to liquid. To this thickener, Whitmore has added tacky polymers and a high viscosity base oil, imparting outstanding water repellency.

On the water sprayoff test (see data table), a result of less than 20% grease loss is considered good; Onyx™ EP 2 loses 9% on this test. On the water washout test, 5% is a good result; Onyx™ EP 2 loses only about 1%.

The extreme pressure capability of Onyx™ is outstanding. The weld point on the Four Ball test is 800 kilograms, which is the highest load possible on this test. This translates into longer bearing life under high load and high shock impact.

Onyx™ is suitable for use up to about 200°F (100°C).

BENEFITS:

- HIGH LOAD CARRYING – prevents scuffing of metal under difficult conditions.
- WATER RESISTANT – resists being diluted by water. Keeps water out of the bearing by forming a repelling ring of grease at the seal.

APPLICATIONS:

Onyx™ is suitable for use in any highly loaded bearing operating in a wet or dry environment. It is recommended for use in paper machine bearings, including wet end bearings and also the roll stand bearings and conveyor bearings in steel mills. Use Onyx™ in pump bearings, especially pumps for caustic or acidic fluids.

| ASTM # | | TYPICAL CHARACTERISTICS | | |
|----------------|---|---------------------------|---------------------------|---------------------------|
| | Grade | 1 | 1.5 | 2 |
| D-217 | Cone Penetration, (Worked) | 310-340 | 290-310 | 265-295 |
| D-2265 | Dropping Point, °F (°C) | >580 (304) | >580 (304) | >580 (304) |
| D-445 | Kinematic Viscosity (Base Oil) cSt @ 40°C cSt @ 100°C | 1224 61 | 1224 61 | 1224 61 |
| Gardner Method | Density, lb/gal @ 60°F (15.5°C) Specific Gravity, g/cc @ 60°F (15.5°C) | 8.19 0.9834 | 8.19 0.9834 | 8.18 0.982 |
| D-2596 | Four Ball EP Weld Point, kg | 800 | 800 | 800 |
| D-2266 | Four Ball Wear Scar Width, mm | 0.56 | 0.56 | 0.56 |
| D-4049 | Water Spray-Off, % Loss | <30 | 26.7 | 9.0 |
| D-1264 | Water Washout, % Loss | <5 | 1.8 | 1.1 |
| D-1743 | Rust Test | Pass | Pass | Pass |
| D-1831 | Roll Stability, % Change | <15 | 8 | 8 |
| | Thickener Type | Calcium Sulfonate Complex | Calcium Sulfonate Complex | Calcium Sulfonate Complex |
| OEM Standard | Low Temperature Pumpability Lincoln Ventmeter @ 400 psi, °F (°C) | 34 (1) | Not Reported | 61 (16) |

The above are average values. Minor variations which do not affect product performance are to be expected in normal manufacturing.

PACKAGING

| | | | |
|-------|------|-------|---------------------------|
| Drums | Kegs | Pails | Cartridges 50 Per Case |
|-------|------|-------|---------------------------|

THE WHITMORE MANUFACTURING COMPANY

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