

Bentonite Grease Specification

1. Product Description

Bentonite grease is a non-melting, high-performance lubricating grease formulated with a bentonite clay thickener and high-quality base oils. It is designed for applications operating under high temperatures where conventional soap-based greases may fail. It offers excellent stability, water resistance, and load-carrying capacity.

2. Technical Specifications

Property	Typical Value	Test Method
Appearance	Smooth, semi-solid grease	Visual
Color	Brown/Black/Gray (Varies)	Visual
Thickener Type	Bentonite Clay	-
Base Oil Type	Mineral or Synthetic Oil	-
NLGI Grade	1, 2, or 3	ASTM D217
Penetration (Worked, 60 Strokes)	265-295 (NLGI 2)	ASTM D217
Dropping Point	Non-Melting	ASTM D2265
Base Oil Viscosity @ 40°C	100 - 460 cSt	ASTM D445
Base Oil Viscosity @ 100°C	10 - 35 cSt	ASTM D445
4-Ball Weld Load	≥ 250 kgf	ASTM D2596
4-Ball Wear Scar (1 hr, 40 kg, 1200 rpm, 75°C)	≤0.6 mm	ASTM D2266
Timken OK Load	≥ 20 lbs	ASTM D2509
Operating Temperature Range	-20°C to +200°C (Short Term: +220°C)	-



Property	Typical Value	Test Method
Water Washout @ 80°C	≤ 3%	ASTM D1264
Copper Corrosion (24h @ 100°C)	1a (Pass)	ASTM D4048
Oxidation Stability (100h @ 100°C, Pressure Drop)	≤ 10 psi	ASTM D942
Rust Prevention (Distilled Water, 48h @ 52°C)	Pass	ASTM D1743

3. Key Features & Benefits

- Non-Melting: Suitable for high-temperature applications where conventional greases fail.
- Excellent Thermal Stability: Maintains consistency at high temperatures.
- Superior Load-Carrying Capacity: Provides excellent protection under heavy loads and extreme pressures.
- Water Resistance: Resists water washout, making it ideal for wet environments.
- **Corrosion and Oxidation Protection:** Prevents rust and oxidation for extended equipment life.
- **Good Adhesion:** Stays in place, reducing the need for frequent re-application.

4. Applications

- High-temperature bearings and bushings
- Kiln and oven conveyor systems
- Steel plants, foundries, and cement industries
- Mining and construction equipment
- Automotive chassis and industrial machinery
- Applications requiring a non-melting grease



5. Packaging

- 400g Cartridges
- 1kg, 5kg, and 15kg Pails
- 50kg and 180kg Drums
- Custom packaging available upon request

6. Storage & Handling

- Store in a cool, dry place away from direct sunlight.
- Keep containers tightly closed to avoid contamination.
- Use clean tools and equipment to avoid grease degradation.