

## *extreme 2*

### H1 Synthetic Food Grade Lubricating Grease

#### Product Description

*extreme 2* is a synthetic NLGI grade 2 high performance food grade lubricating grease used where incidental contact with food is a possibility. It contains unique thickener technology, synthetic base fluids and proprietary additives. It excels in applications where resistance to water washout and broad operating temperatures are absolutely necessary. The formulation of this product provides unsurpassed resistance to extreme pressures and corrosion, including salt spray. *extreme 2* also has exceptional mechanical stability even in the presence of water. It contains no heavy metals or other environmentally undesirable additives.

#### Product Application

*extreme 2* can be applied from ambient temperatures of -40°F to +400°F (-40°C to + 204°C) depending on lubrication system design and method of application. *extreme 2* has an operating range of -60°F to +400°F (-51°C to 204°C) once in the application. Follow equipment manufacturer's recommendations concerning lubrication frequencies.

#### Performance

- Food Grade H1 approved
- Mechanical Stability - The mechanical stability of *extreme 2* is outstanding.
- Load Carrying Ability - *extreme 2* has excellent EP properties. Timken values of 65 pounds OK load, LWI of 65 kg and weld point of 620 kg are typical, while 4 Ball Wear performance is equally outstanding.
- Thermal Stability - High temperature performance of *extreme 2* is excellent in all areas tested. *extreme 2* does not become fluid at temperatures approaching 600°F and after cooling to room temperature, it returns to its original grease structure.
- 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 *extreme 2* to oxidation, outperforming other premium greases.
- Resistance to Water - In this test, *extreme 2* is reported to show excellent adhesion, high water absorption and no sign of breakdown. Work stability with water - in a variation of the ASTM work stability test, *extreme 2* 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.
- Corrosion Resistance - *extreme 2* provides excellent corrosion protection. *extreme 2* passed 4,000 hours through the vigorous Salt Spray Life and the Salt Water Soak Life Test.
- Low Temperature Performance - *extreme 2*, as a low temperature grease, also performs well over a wide temperature range.

Typical Product Specifications

|   |                   |
|---|-------------------|
| Color   | Tan               |
| Texture   | Smooth            |
| NLGI Grade  | 2                 |
| Penetration, Worked 60 Strokes, ASTM D 217                  | 265-295           |
| Penetration Change, 100,000 Strokes, FTM 791C 313.2         | +/- 5%            |
| Wheel Bearing, ASTM D 1263, Modified 325°F (163°C)          | 0.4 Grams         |
| Dropping Point, ASTM D 2265                                 | +572°F (+300°C)   |
| Oxidation Stability, ASTM D 942, 100 hours at 99°C          | 0.5 psi (3.5 kPa) |
| Four-Ball Wear, ASTM D 2266, 40 kg, 1200 RPM, 75°C, Scar mm | 0.45 Max.         |
| Four-Ball EP, Weld Point, ASTM D 2596, kfg                  | 400               |
| Timken OK Load, ASTM D 2509, Pounds                         | 65                |
| Copper Strip Corrosion, ASTM D 4048                         | 1a                |
| Corrosion Preventive Properties, ASTM D 1743                | Pass              |
| Oil Separation, ASTM D 1742                                 | 0.2%              |
| Water Washout, ASTM D 1264, 175°F (79°C), % Loss            | 2.75              |
| Low Temperature Torque, ASTM D 1478, -40°F (-40°), gram-cm  | <1,000            |
| US Steel Mobility @ 150 psi, -18°C g/min                    | 125 Mil           |
| Salt Fog Test, B-117, hours                                 | +2,500            |
| Base Fluid Properties:                                      |                   |
| Viscosity @ 100°C, ASTM D 445, Centistokes                  | 7.89              |
| Viscosity @ 40°C, ASTM D 445, Centistokes                   | 46                |
| Viscosity @ 210°F, ASTM D 2161, SUS                         | 53                |
| Viscosity @ 100°F, ASTM D 2161, SUS                         | 235               |
| Viscosity Index, ASTM D 2270                                | 142               |
| Pour Point, ASTM D 97                                       | -50°C Max.        |
| Flash Point, ASTM D 92                                      | 255°C             |

Safety - Disposal

Emergency and First Aid Procedures

- Eye Contact - If splashed into eyes, flush with clean water for 15 minutes or until irritation subsides. If irritation persists, call a physician immediately.
- Skin Contact - In case of skin contact, remove any contaminated clothing and wash skin thoroughly with mild soap and water. If irritation persists, call a physician immediately.
- Inhalation - Remove affected person to fresh air. Call a physician immediately.
- Ingestion - If ingested, call a physician immediately.

See Material Safety Data Sheet for additional information.

extreme 2 should be stored indoors. Dispose of in accordance with local authorities.

DOT Labeling Requirements

| Hazardous Materials Description and Proper Shipping Name (49 CFR 172.101): | Hazardous Class (49 CFR 172.101) |
|--|----------------------------------|
| Not Regulated  | Not Applicable                   |