



58506/58520 WYNN'S ULTRA SYNTHET HI-TEMP UNIVERSAL GREASE (BULK)

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PRODUCT INFORMATION SHEET

WYNN'S ULTRA SYNTHET HI-TEMP UNIVERSAL GREASE (BULK)

Product Number: 58506 180 kg 58520 20 kg

WYNN'S ULTRA SYNTHET HI-TEMP UNIVERSAL GREASE is a new generation lubricating grease developed by a new process of complexing modified overbased sulphonates. This new process gives Wynn's Ultra Synthet Hi-Temp Universal Grease exceptional mechanical stability, very high load carrying ability, excellent resistance to water, oxidation and corrosion and outstanding performance in high temperature applications.

Advantages

Wynn's Ultra Synthet Hi-Temp Universal Grease contains no heavy metals or other harmful or environmentally undesirable additives such as sulphur, phosphorus, chlorine, zinc, phenols, antimony, barium or lead.

Wynn's Ultra Synthet Hi-Temp Universal Grease does not become fluid at temperatures approaching 315°C. At a constant elevated temperature of 260°C, its lubrication life is greater than other premium greases.

Wynn's Ultra Synthet Hi-Temp Universal Grease does not freeze up at temperatures approaching -50°C. It has a starting torque of less than 10,000 g-cm (1.0 N.m) at -40°C.

Based on the low temperature torque test and lubricating life at high temperatures, Wynn's Ultra Synthet Hi-Temp Universal Grease has a normal operating temperature range from -40°C to 260°C. It also has the capability of operating for short periods up to 300°C.

The formulation of Wynn's Ultra Synthet Hi-Temp Universal Grease has excellent extreme pressure (E.P.) properties which provide a very high load carrying ability.

The corrosion resistance of Wynn's Ultra Synthet Hi-Temp Universal Grease is especially recommended for use in extreme acidic or alkaline environments.

The excellent adhesion of Wynn's Ultra Synthet Hi-Temp Universal Grease prevents breakdown and gives exceptional resistance to water washout.

Wynn's Ultra Synthet Hi-Temp Universal Grease shows no tendency to harden or change in consistency when heat soaked for extended periods.

Wynn's Ultra Synthet Hi-Temp Universal Grease has exceptional mechanical stability and retains its consistency in service.

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Benefits

The outstanding formulation of Wynn's Ultra Synthet Hi-Temp Universal Grease provides the following benefits:

- High Temperature Performance
- Low Temperature Performance
- Wide Operating Temperature Range
- High Load Carrying Ability
- Exceptional Mechanical Stability
- Excellent Resistance to Water
- Oxidation and Corrosion Resistance
- No Age Hardening in Service

Applications

Wynn's Ultra Synthet Hi-Temp Universal Grease has automotive applications in all chassis points, wheel bearings, king pins and fifth wheels. It is particularly suitable for heavy duty diesel engine vehicles fitted with electronic braking system (EBS) incorporating disc brake axles.

Wynn's Ultra Synthet Hi-Temp Universal Grease has industrial applications in anti-friction bearings, low and high speed journal bearings, oven conveyors, electric motor bearings, steel mill roller bearings, crusher bearings, construction and agricultural equipment.

Wynn's Ultra synthet Hi-Temp Universal Grease has marine applications due to its excellent water and corrosion resistance.

Wynn's Ultra Synthet Hi-Temp Universal Grease exhibits little or no weaknesses and it is the nearest thing to a true universal lubricant.

ASTM D 4950 Specification

Wynn's Ultra-Supreme Grease meets the following Acceptance Limits in the LB/GC Specification (ASTM D 4950 Standard Classification and Specification for Automotive Service Greases) for certification by N.L.G.I.

| Property | ASTM Test Method | Result | Specification |
|---|-------------------------|---------------|----------------------|
| Penetration at 25°C (mm/10) worked, 60 strokes | D 217 | 270 | 220-340 |
| Dropping Point (°C) | D 2265 | +300 | 175 min |
| 4-Ball Wear at 75°C Scar (mm) | D 2266 | 0.39 | 0.6 max |
| 4-Ball EP Load Wear Index (kgf) Weld Point (kgf) | D 2596 | 65 500 | 30 min 200 min |
| Oil Separation (% loss) | D 1742 | 0.17 | 6 max |
| Rust Prevention (Rating) | D 1743 | 1,1,1 | Pass |
| Water Resistance at 80°C (% loss) | D 1264 | 2.75 | 15 max |
| Torque at -40°C (N.m) | D 4693 | 1.0 | 15.5 max |
| High Temperature Life (hours) | D 3527 | 120 | 80 min |
| Operating Temperature Range (°C) | D 4950 | -40 to 260 | -40 to 160 |
| Occasional Maximum Temperature (°C) | D 4950 | 300 | 200 |

Typical Characteristics

| PROPERTY | TEST METHOD | TYPICAL |
|---|--------------------|----------------------------|
| NLGI Grade | - | No. 2 |
| Colour | - | Olive Green |
| Texture | - | Smooth/Buttery |
| Thickener Type | - | Calcium Sulphonate Complex |
| Penetration at 25°C (mm/10) | ASTM D 217 | |
| Unworked | | 270 |
| Worked, 60 Strokes | | 270 |
| Worked, 10,000 Strokes | | 269 |
| Worked, 10,000 Strokes (50% Water) | | 272 |
| Dropping Point (°C) | ASTM D 2265 | +300 |
| Leakage, Wheel Bearing (65g Packed) at 163°C (g) | ASTM D 1263 | 0.4 |
| Water Washout, at 80°C (% loss) | ASTM D 1264 | 2.75 |
| Oil Separation (% mass) | ASTM D 1742 | 0.17 |
| Rust Prevention (Rating) | ASTM D 1743 | 1,1,1 |
| Timken OK Load (kg) | ASTM D 2509 | 30 |
| 4-Ball EP Test | ASTM D 2596 | |
| Load Wear Index (kg) | | 65 |
| Weld Point (kg) | | 500 |
| 4 – Ball Wear Test, scar (mm) | ASTM D 2266 | 0.39 |
| Wheel Bearing Life (hours) | ASTM D 3527 | 120 |
| Fretting wear protection (mg) | ASTM D 4170 | 3.4 |
| Base Oil Viscosity at 40°C (cSt) at 100°C (cSt) | ASTM D 445 | 207 16.7 |
| Base Oil Viscosity Index | ASTM D 567 | 95 |
| Base Oil Flash Point (°C) | ASTM D 92 | 232 |
| Base Oil Pour Point (°C) | ASTM D 97 | -15 |
| Operating Range (°C) | ASTM D 4950 | -40 to 260 |
| Roll Stability (Penetration) | ASTM D 1831 | +19 |
| Oxidation Stability (psi pressure drop) At 100 hours At 500 hours At 1000 hours | ASTM D 942 | 0 2 9 |

Compatibility

The following table gives the compatibility of Wynn's Ultra Synthet Hi-Temp Universal Grease (with its calcium overbased sulphonate complex thickener) with other greases.

| Thickener | Aluminium Complex | Barium Complex | Calcium Simple | Calcium Sulphonate Complex | Bentonite Clay | Lithium Simple | Lithium Complex | Polyurea | Sodium |
|----------------------------|-------------------|----------------|----------------|----------------------------|----------------|----------------|-----------------|----------|--------|
| Aluminium complex | C | I | I | I | I | B | B | B | I |
| Barium complex | I | C | I | I | I | I | I | I | I |
| Calcium Simple | I | I | C | C | I | C | C | C | I |
| Calcium Sulphonate Complex | I | I | C | C | I | B | B | B | I |
| Bentonite Clay | I | I | I | I | C | I | I | I | I |
| Lithium Simple | B | I | C | B | I | C | C | B | B |
| Lithium Complex | B | I | C | B | I | C | C | B | B |
| Polyurea | B | I | C | B | I | B | B | C | I |
| Sodium | I | I | I | I | I | B | B | I | C |

I: Incompatible.

C: Compatible.

B: Borderline, sample should be checked.*

* It is always good industry practice not to mix different brands of greases, and to clean or purge previous greased lubrication systems.

Performance

Water Resistance – the Ultra Synthet series is reported to show excellent adhesion, high water absorption and no sign of breakdown.

1. Resistance to Water – in a variation of the Work Stability Test, the Ultra Synthet series 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 breakdown.
2. Water Washout (D-1264) – here again, the Ultra Synthet series compares favorably to other premium greases.

Corrosion Resistance – the Ultra Synthet series provides excellent corrosion protection and passed 4000 hours through the vigorous Salt Spray Life and the Salt Soak Life Test. The Ultra Synthet series easily passes the Bearing Corrosion Test (D-1743) and in a more severe variation of this test, incorporating synthetic sea water, the Ultra Synthet series passed with a 1,1,1 rating. In continued dynamic anti-rust testing, the Emcore Test, also showed no signs of corrosion with a 0,0 rating.

Salt Fog Test: ASTM B 117: 5% Salt Fog @ 38°C, 5 mils on Q-Panel type S. Soak Test: 5 mils on Q-Panel type S, submerged 50% in a 5% salt solution at room temperature.

Oxidation Stability - the Bomb Oxidation Stability (D-942) test resulted in a psi drop of 2 after 500 hours and 9 psi after 1,000 hours proving excellent resistance to oxidation and outperforming other premium greases.

Mechanical Stability – the mechanical stability of the Ultra Synthet series is outstanding. Tests in the ASTM Grease Worker show no change in consistency after 100,000 strokes or any sign of breakdown. The Roll Stability (D-1831) test was modified from six hours at room temperature to 100 hours @ 66°C to increase the severity and again, no significant softening was observed.

Load Carrying Ability – the Ultra Synthet series has excellent extreme pressure (EP) properties. Timken values of 30 kg OK load, LWI of 65 kg and a weld point of 500 kg are typical, while 4 Ball Wear performances is equally outstanding.

Thermal Stability – high temperature performance of the Ultra Synthet series is excellent in all areas tested, i.e.,

1. Dropping Point (D-2265) – The Ultra Synthet series does not become fluid at temperatures approaching 315°C and after cooling to room temperature, it returns to its original grease structure.
2. Wheel Bearing Leakage (D-1263) – In this test, modified at 163°C the Ultra Synthet series shows no leakage, hardening or other signs of failure.