## INDUSTRIAL GREASE

# **HITEC®** 552 High Performance Grease Package



Multifunctional Componentry Formulated to Resist Degradation of Critical Grease Properties







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#### **Application**

HiTEC® 552 is a reliable grease additive package that combines extreme pressure and antiwear performance with basic rust protection and antioxidancy. HiTEC® 552 is carefully formulated to resist degradation of critical grease properties such as dropping point and stability in the presence of water. This system can be used by itself in a variety of economy-tier, multipurpose greases that require basic EP/AW and corrosion protection. It can also be used as a core "building block" with additional top treats being used to give required performance for specialty grease applications.

#### **Key Performance Benefits**

- Excellent EP and load carrying properties
- · Very good long-term rust and wear protection
- · Won't adversely effect thickener structure
- · High thermal stability

#### **Recommended Dosage**

The recommended treat rate for HiTEC® 552 is 0.5% to 3.0% wt. for typical grease applications depending on thickener type and performance level desired. Please contact your Afton Chemical representative for specific recommendations.

#### **Typical Characteristics**

| Appearance                     | Amber Liquid |
|--------------------------------|--------------|
| Density, lbs/gal               | 8.95         |
| Specific Gravity @ 15.6/15.6°C | 1.075        |
| Viscosity @ 100°C, cSt         | 9            |
| Flash Point, °C (PMCC)         | 100 min.     |
|                                |              |

#### **Handling Information**

Max Handling Temp: 80°C Shelf Life: 24 months @ ambient

| Additive System: HiTEC® 552<br>Treat Rate @ 1.5% wt |                      |   |   |  |
|---|----------------------|---|---|--|
|   | NLGI #2 Grade Grease |   |   |  |
| Test Name   | ASTM<br>Methods      | Typical<br>Performance<br>in Lithium<br>12-OH | Typical<br>Performance<br>in Lithium<br>Complex |  |
| Worked-60 Pen, mm/10                                | D217                 | 280   | 280   |  |
| Worked-10K Pen, mm/10                               | D217                 | 285   | 285   |  |
| Worked-100K Pen, mm/10                              | D217                 | 295   | 295   |  |
| Dropping Point, °C (°F)                             | D566                 | 190 (374)                                     | 265 (509)                                       |  |
| Rust Prevention, rating                             | D1743                | Pass  | Pass  |  |
| Copper Corrosion, rating                            | D4048                | 1b  | 1b  |  |
| Roll Stability (86F, 2 hrs), % change               | D1831                | 8   | 5   |  |
| Oil Separation (24 hrs @ 25°C), % loss              | D1742                | 5   | 4   |  |
| Water Washout, % loss                               | D1264                | 10  | 10  |  |
| Leakage, grams loss                                 | D4290                | 4   | 4   |  |
| Four-Ball Wear, mm                                  | D2266                | 0.5   | 0.6   |  |
| Four-Ball Weld, kgf                                 | D2596                | 250   | 315   |  |
| Four-Ball LWI, kgf                                  | D2596                | 40  | 45  |  |
| Oxidation Stability, PSI drop                       | D942                 | 3   | 3   |  |

| HiTEC® 552 Core Formulation Examples |                            |                           |  |
|--------------------------------------|----------------------------|---------------------------|--|
| Good                                 | Premium                    | Less Severe               |  |
| Multipurpose Grease                  | Specialty Grease           | Applications Applications |  |
| 1.5% wt.                             | 2.0% wt. + Top Treat       | 0.5 -1.5% wt.             |  |
|                                      | (EP/AW, RI, polymer, etc.) |                           |  |

