

## 5002 | Power Klenz ID with Xtreme Torque®

### DESCRIPTION:

Injector nozzle coking is not the only concern faced by modern high pressure common rail (HPCR) engines. Internal diesel injector deposits (IDID) are causing substandard performing injectors that lead to decreased power, decreased fuel economy, and increased regulated emissions. This coupled with other ailments, which can be present in ultra low sulfur diesel (ULSD) – require the need for a Premium Select™ premium diesel additive (PDA).

Power Klenz ID (PKID) 5002 is a Premium Select™ PDA engineered to eliminate injector problems associated with today's HPCR engines, enhance many other qualities of fuel and may be used in traditional diesel engines. PKID 5002 provides "Premium Diesel Fuel" qualities to ULSD in terms of injector deposit control, corrosion, filter blocking tendency (FBT), lubricity and cetane number. PKID 5002 contains Xtreme Torque®, a powerful cetane improver, for maximum boost in power and performance and vastly superior IDID quick clean / keep clean additives.

### COMPOSITION:

Power Klenz ID 5002 contains the following additives:

- IDID Specific Additives
- Lubricity Agents
- Detergents
- Antifouling Agents
- Dispersants
- Rust Inhibitors
- Thermal Stability Rejuvenation Agents
- Stabilizers
- Corrosion Inhibitors
- Anti-Oxidants
- Metal Deactivators
- Asphaltene Dissolution and Dispersion Agents
- Carboxylate Dissolution and Dispersion Agents
- Filterability Rejuvenation Agents

### PERFORMANCE CHARACTERISTICS:

**Injector Deposit Control (Detergency)** – PKID 5002 eliminates and prevents IDID formation and traditional nozzle coking deposits, thus improving/sustaining power, fuel economy, and regulated emissions caused by injector deposits.

**Stability** – Fuel can also be treated with PKID 5002 to improve stability of the treated fuel. Thermal stability may be measured by ASTM D6468 Thermal Stability Test as well as other commonly used storage stability tests. In responsive fuel, thermal stability can be rejuvenated.

**Cetane** – PKID 5002 improves ignition efficiency, improves cold starts, reduces warm-up time, smoothes engine operation, increases power and fuel economy. PKID 5002 is formulated with Xtreme Torque® to produce an increase of 1 cetane number or 10 points, in responsive diesel fuels, at its optimum treatment rate.

**Lubricity** – PKID 5002 improves lubricity of diesel fuels in both the HFRR Test and the BOCLE Test, which is a critical factor with ULSD No. 2 and No.1.

**Rust and Corrosion Protection** – Prevents all types of rust and corrosion in fuel lines, strainers, pumps and injectors.

**Filter Blocking Tendency** - PKID 5002 improves fuel flow through filters, in responsive fuels, as measured by ASTM D2068.



## 5002 Power Klenz ID with Xtreme Torque®

### USES:

- Quickly Clean/Prevent IDID
- Boost Power
- Clean/Maintain Fuel Spray Pattern
- Prevent Sludge Induced Filter Plugging
- Reduce Combustion Noise
- Dissolve and Disperse Asphaltenes
- Clean Entire Fuel System
- Increase Cetane Number
- Rejuvenate Thermally Stressed Fuels
- Reduce Regulated Emissions and Black Smoke
- Highly Effective in Bio-Diesel
- Reduce Injector System Maintenance
- Extend Engine Life
- Extend Filter Life
- Extend Fuel Storage Life
- Increase/Maintain Fuel Economy
- Improve Flow through Filter(s)
- Dissolves and Disperses Carboxylates

### APPLICATIONS:

PKID 5002 is an extremely versatile product that can be used in a wide range of effective treatment ratios from an economical 1:2000 to 1:250 for quick cleaning and maximum performance benefits or for non-responsive or poor quality diesel fuels.

PKID 5002 is recommended for ULSD. Use at 1:1000 for enhanced DW-10 (CEC F-98-08)/XUD-9 (CEC F-23-01) performance in suitable diesel fuels and optimal overall performance in most applications including lubricity in kerosene. Treat rates as low as 1:2000 may be used to provide significant enhancement of all properties in responsive fuels. Use at 1:500 for IDID DW-10C (CEC F-110-16(S)) performance, outstanding XUD-9 (CEC F-23-01) performance, to clean and prevent carboxylate and sticky IDID or to achieve specific target criteria in certain fuels. Use at 1:250 for IDID DW-10C (CEC F-110-16(S)) performance, outstanding XUD-9 (CEC F-23-01) performance and other extreme performance gains, to quickly clean and prevent carboxylate and sticky IDID or to achieve specific target criteria in certain fuels.

The sulfur content of this diesel fuel additive does not exceed 15 ppm. This diesel fuel additive complies with the federal low sulfur content requirements for use in diesel motor vehicles and nonroad engines.

PKID 5002 is recommended for use at 1:1000 in biodiesel blends B6 through B10. Use at 1:500 in B11 through B20.

### TYPICAL SPECIFICATIONS:

Appearance	Amber Liquid
Viscosity, mm <sup>2</sup> /sec @ 40° C	3.0
Flash Point, °F min.	142
Density (#/gal)	6.5-7.5
Pour Point, °F max.	-45
Klenz ID® Product's HFRR Wear Scar Range	200 µm - 340 µm
Baseline Diesel HFRR Wear Scar	610 µm