



The First in Synthetics®

## P.i. Performance Improver Gasoline Additive

AMSOIL P.i. is a potent, deep-cleaning gasoline performance improver featuring concentrated detergents that aggressively clean stubborn, power-robbing deposits from injectors, valves and combustion chambers. It reduces emissions and increases fuel economy up to 5.7 percent.<sup>1</sup> P.i. cleans your entire fuel system and restores your engine's power and performance in one tank of gasoline. The P.i. bottle is fully compatible with the capless fuel systems of modern vehicles for easy application.

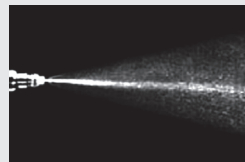


### Maximum Deposit Clean-up

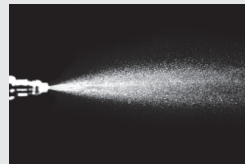
AMSOIL P.i. features aggressive additives that attack the most common forms of engine deposits and limit their effects.

### Removes Fuel Injector Deposits

Most new engines feature gasoline direct-injection (GDI) to boost power and improve fuel economy. These injectors are located inside the intense heat and pressure environment of the combustion chamber, making them particularly vulnerable to deposits. Extreme pressure combined with incomplete fuel combustion can lead to dramatically increased soot (particulate matter) levels. Direct injection typically creates 30 to 40 times more soot than port fuel injectors (PFI). Even a minimal amount of injector fouling can lead to increased pollution and wear and decreased power and fuel economy.



Port injector spray pattern before P.i. treatment.



Port injector spray pattern after P.i. treatment.

- Restores power and performance
- Reduces need for costly higher-octane fuel
- Reduces noise from carbon rap and pre-ignition
- Controls pre-ignition "knock"
- Improves fuel economy
- Capless compatible

### Injector deposits:

- Decrease efficiency, power and fuel economy
- Increase exhaust emissions
- Contribute to poor starting and rough idle

P.i. removes stubborn deposits and keeps injectors functioning as they should. Testing shows P.i. restored GDI fuel injectors to a 100 percent flow rate after one tank of fuel.<sup>2</sup>

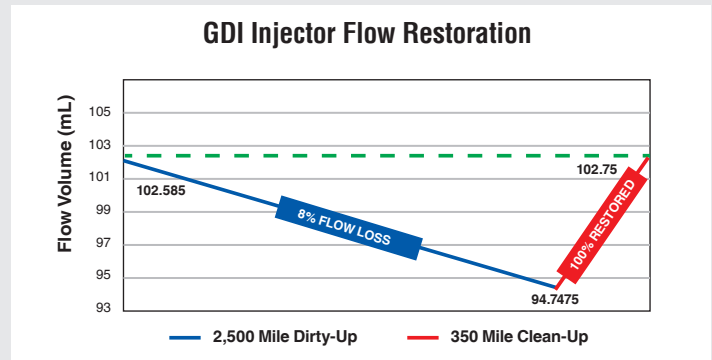
### Fights Intake Valve Deposits

Valve deposits alter or restrict airflow patterns in the cylinder. They disrupt the balanced air/fuel ratio by momentarily absorbing and releasing fuel. The deposits can also cause valve sticking by getting in the way of the valve stem and guide.

### Intake valve deposits:

- Decrease power and efficiency
- Increase exhaust emissions
- Lead to potential valve failure

P.i. helps keep valves clean and moving freely.



<sup>1</sup>Based on independent testing using EPA tests: Federal Test Procedure 75 (FTP), Supplemental Federal Test Procedure (US06), and the Highway Fuel Economy Test (HFET). Average fuel mileage increase of 2.3 percent.  
<sup>2</sup>ASTM D5598(M) – 2013 Buick Regal test vehicle

## Cleans Combustion Chamber Deposits

Combustion chamber deposits increase compression and absorb heat during combustion. Later, they release that heat during the intake cycle. In some engines deposits can cause the piston to actually hit the cylinder head – a process known as “carbon rap.” The deposits can also flake off and become trapped between the valves and valve seat, resulting in compression loss.

Higher compression and stored heat increase the likelihood of pre-ignition “knock” when the fuel spontaneously combusts prior to spark ignition. This increases emissions and may cause engine damage. Most vehicles have sensors that adjust spark timing to prevent knock. Although audible “knock” is controlled, power is lost from retarded timing and engine efficiency suffers. Higher octane fuels can be used to help prevent the phenomenon. As a vehicle ages, more-expensive, higher-octane fuel is needed to keep it operating at peak performance.

### Combustion chamber deposits:

- Increase the possibility of “carbon rap”
- Contribute to compression loss, difficult starting and rough idling
- Increase the possibility of pre-ignition “knock” or “pinging”

P.i.  **fights combustion chamber deposits** which helps restore power, control knock, increase fuel economy and reduce the need for higher-octane fuels.

## Maximum Fuel Economy & Reduced Emissions

AMSOIL P.i. maximizes fuel efficiency by dissolving and removing deposits and other contaminants for improved power and overall performance. It improves fuel mileage up to 5.7 percent.<sup>1</sup>

P.i. works as an “emissions passer.” Running one tank of treated fuel through your engine helps pass emissions tests.

### P.i. also reduces the following types of emissions:<sup>1</sup>

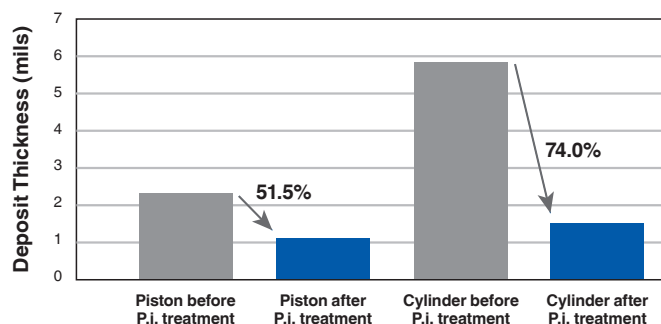
- Hydrocarbons (HC) up to 15%
- Carbon monoxide (CO) up to 26%
- Nitrous oxides (NOx) up to 17%

## Capless-Compatible Packaging

Many new vehicles have replaced traditional fuel caps with capless systems. The threads on most bottles restrict them from opening the flap inside the fuel neck and also make removing the bottle difficult. The P.i. bottle is fully compatible with capless fuel systems.

<sup>1</sup>Based on independent testing using EPA tests: Federal Test Procedure 75 (FTP), Supplemental Federal Test Procedure (US06), and the Highway Fuel Economy Test (HFET). Average fuel mileage increase of 2.3 percent. All trademarked names and images are the property of their respective owners and may be registered marks in some countries. No affiliation or endorsement claim, express or implied, is made by their use. All products advertised here are developed by AMSOIL for use in the applications shown.

## Motored Dyno D5500(M) Type Road Simulation Cycle 2013 Buick® Regal® Test Vehicle



## RECOMMENDATIONS

- For use in gasoline powered cars and trucks.
- Treats up to 30 gallons. Add entire bottle to tank at fill-up.
- For best results, clean your fuel system with P.i. every 4,000 miles.
- For large gas tanks, treat with two bottles of P.i. Using more than two bottles per treatment is not recommended.
- Safe for use with catalytic converters, oxygen sensors, oxygenated gas and up to 15 percent ethanol blended gas.
- Do not use with diesel or E85 fuel or two-stroke engines.

## AMSOIL PRODUCT WARRANTY

AMSOIL products are backed by a Limited Liability Warranty. For complete information visit [www.amsoil.com/warranty.aspx](http://www.amsoil.com/warranty.aspx).

## HEALTH & SAFETY

This product is not expected to cause health concerns when used for the intended application and according to the recommendations in the Safety Data Sheet (SDS). An SDS is available at [www.amsoil.com](http://www.amsoil.com) or upon request at (715) 392-7101. Keep Out of Reach of Children.



AMSOIL products and Dealership information are available from your local full-service AMSOIL Dealer.