

What is Tiretyte?

Tiretyte is the world's premium in-tire sealant designed as a preventative maintenance system to eliminate flat tires due to tread-area punctures and other leaks. Once installed, Tiretyte provides continuous protection for the life of the tire. Tiretyte immediately seals most existing small bead leaks, rim leaks and tire and tube leaks. Tiretyte remains fluid inside the tire, instantly and permanently sealing numerous tread-area punctures as they occur. Tiretyte will increase tire service life and reduce tire related downtime costs on both high and low pressure commercial and industrial vehicles, both on and off road. Tiretyte is effective in both high and low speed tires.

Tiretyte will seal the tire to maintain correct tire pressure and will stop flats from punctures of ¹/₄ inch in the tread area. This tire sealing ability makes greater dollar savings possible from:

- A. Increased tread service life.
- B. Lower maintenance and downtime costs.
- C. Improved fuel economy.

Maximum tire wear and better gas mileage, plus fewer hours of expensive downtime and tire maintenance, provides significant savings.

Tiretyte Description

Tiretyte is a revolutionary technology made of an ethylene-glycol based solution with artificial fiber and particulate in permanent suspension. This solution is carefully blended with an adhesion agent and anti-corrosion inhibitors to produce a premium tire sealant compound. These selected ingredients remain in permanent suspension—there is no settling out, so no special mixing or preparation is required. Since there is virtually no evaporation inside an inflated tire, Tiretyte remains fluid to perform for the life of the tire. The adhesion agent in Tiretyte holds it in place, even after the tire has stopped operation, to provide continuous protection against air loss. Tiretyte is completely water-soluble for easy clean up of hands, clothes and even the tire if recapping is desired.

How Tiretyte Works

Tiretyte is injected into the tire through the valve stem (see installation directions). The motion of the rotating tire causes Tiretyte to spread in all directions. The entire surface areas of the tire cavity and the wheel are coated. When such spreading occurs, Tiretyte is placed into position to function for the life of the tire. The adhesion agent in Tiretyte holds it in place even after the vehicle has stopped. Tiretyte instantly seals causes of air loss, whether it is from punctures in the tread area, small rim or bead leaks, or the inevitable porosity of natural rubber.

Tiretyte will not cause tire imbalance, rust or corrode wheels or harm tire components. By maintaining correct air pressure and the resultant cooling of the tire, Tiretyte can extend tire life by up to 25% or more. Tiretyte is water-soluble for easy clean up which allows for recapping, if desired. Tiretyte is also biodegradable. After the tire is punctured, Tiretyte enters the wound. This instantly forms a temporary seal to stop air loss. As the tire continues to rotate under load, the solution is squeezed out as the puncture rolls off the load point, leaving the fiber, particulate and adhesion agent in the wound. Repeated rolling under load deposits more of these components until a permanent seal is formed. This process is repeated when the puncturing object is removed. The tire must roll under load after the puncture to insure proper sealing. Under actual operating conditions, this entire sealing process is almost instantaneous. Tiretyte is designed to seal punctures in the tread area up to ¹/₄ inch diameter (often times capable of sealing larger punctures).

Installation

Installation is quick and simple with our calibrated hand injection pump. The pump fits into the top of the pail and injects 10 ounces per stroke. The injection pump is very durable and can easily overcome up to 50 lb. of tire pressure — there is no need to completely deflate

the tire, so installation time is kept to a minimum. Tiretyte comes ready to install, no mixing or special preparation is needed. Instructions and a tire application chart are provided. The pump is completely reusable and may be cleaned for storage by flushing with water, although we suggest leaving the pump in the pail for convenience. (A high-pressure pneumatic injection system is available for high volume Tiretyte customers with large fleets.)

Tiretyte Reduces Tire Heat

Tiretyte has a cooling effect on the tire. Tiretyte reduces tire temperature through both correct inflation pressure maintenance and thermal conduction. Because of the variation of the internal and external friction on various parts of the tire, and since rubber is a very poor conductor of heat, there are substantial differences in temperature at various points within the tire. The ethylene-glycol content of Tiretyte acts as a thermal conductor, transferring heat from areas of higher temperature tread area to areas of lower temperature. This thermal distribution of heat helps to keep the overall tire temperature down during operation. The effect of thermal conduction tends to be greater in larger, slower moving industrial and commercial tires, because of the larger areas of the sidewalls that are coated with Tiretyte. The cooling effect that Tiretyte has on the tire, results in a longer tread life.

Retreads

Heat generated from under-inflated tires frequently contributes to retread separations. Tubeless retreads are particularly vulnerable to tread separations. Frequently, small holes in the inner liner are missed in the pre-retread inspection. High-pressure air passes through the hole to the new rubber of the tread. With its escape route cut off, air spreads out between the old casing and the new tread until separation and failure occurs. By effectively and immediately sealing these small liner holes, Tiretyte reduces the pressure on the new tread. As a result of using Tiretyte, the integrity of the tire casing is maintained and the full service life of the tire is maximized.

Tiretyte is completely water-soluble and fully compatible with all methods and compositions used in the retread process.

Under-Inflation Is The Enemy

- Air loss can come from:
 - A. Punctures.
 - B. Rim and Bead imperfections.
 - C. Natural porosity of rubber tires and tubes.
 - D. Flawed liners and tubes.

The most frequent cause of tire failure is under-inflation. Under-inflated tires increase fuel usage, run hotter, wear faster, and are much more subject to punctures and other road hazard damage. Hot rubber simply wears faster and has less resistance to cuts and punctures. According to the American Trucking Association, a truck tire under-inflated by just 6 lbs can destroy over 10% of the overall life of that tire! (this can become extremely costly for a fleet).

Fuel economy suffers when tires are under-inflated. Studies show that under-inflation increases rolling resistance, which means more fuel is consumed in moving the tires and vehicle. The difference can mean a 12% or more increase in fuel economy. Rubber tires are relatively porous; most tires will lose air over time, some faster than others. Upon installation, after a few miles of operation, Tiretyte will virtually eliminate the slow porosity air loss and small rim and bead leaks to help maintain the

proper tire air pressure for the life of the tire. You save time and money.

