



Punctureseal FAQ Page

• Q – Is Punctureseal Strictly for Repairing a Damaged Tyre?

• **A - No!**

• Punctureseal is designed as a preventative maintenance tyre additive installed prior to a tyre sustaining damage from puncturing objects or damage caused from being driven underinflated. Punctureseal can be installed into a punctured tyre then re-aired and driven a short distance to allow the product to seek out and repair the damage. A tyre that has sustained significant damage should be checked by a professional and discarded if necessary.

• Q – Can Punctureseal be used in all types of tyres?

• **A - Generally, yes!**

• For over 40 years, Punctureseal has been utilized in virtually every conceivable type of pneumatic tyre. Punctureseal-treated tyres have traveled millions of miles ensuring safety and security for the vehicles of private individuals and major fleets around the world. Punctureseal makes a wide variety of products for all applications, however, the most aggressive grade, XHD, is designed for use in commercial equipment and should not be used in high performance, low profile tyres. Contact your local Punctureseal representative for additional information.

• Q – Can Punctureseal be used in tyres with tubes?

• **A - Yes!**

• Punctureseal will seal punctures in tube tyres, however, tubes are

very unpredictable and susceptible to getting ripped as well as punctured. Because a tube can shift within the tyre, nails and puncturing objects should be removed as soon as possible. Due to these characteristics, effective sealing capabilities are somewhat reduced.

- Q – Does Punctureseal form a secure and reliable repair?

- **A - Yes!**

- The Punctureseal liquid/fiber matrix repair is formed by the action of entwined fibers in the sealant being forced into the damage site by escaping air and centrifugal force. The rubber tyre simultaneously recovers to its original moulded shape, holding the repair in place. Heat and pressure set the plug, forming a positive and secure repair that remains air tight for the life of the tyre.

- Q – Will Punctureseal seal sidewall punctures?

- **A - No!**

- A tyre's sidewall is much thinner than the tread area. Even though there is some rubber recovery, it is insufficient to securely hold a repair. Punctureseal does not guarantee repairs in the crown or sidewall.

- Q – Will Punctureseal seal large punctures?

- **A - Yes!**

- Punctureseal's Extreme Heavy Duty grade is designed specifically for use in large or slow-moving vehicles and equipment where protection from punctures up to 1/2" (12mm) is required. Important: If a tyre has sustained major damage to its structural integrity, regardless of the puncture size, Punctureseal will come to a safe, controlled stop. Punctureseal will not hide or mask a dangerous wound.

- Q – Is there a difference between Punctureseal and a patch?

- **A - Definitely, yes!**

- A patch is a repair that is performed after the tyre has been punctured. A patch blocks air from leaking. Often, the driver is unaware of the puncture and continues driving until the tyre is run flat causing potentially serious and unnoticed damage to the casing. Punctureseal is a preventative measure designed to seal punctures as they occur. The Punctureseal repair forms a fibrous plug that extends from the tyre's interior through to the outer surface. Punctureseal prevents air from escaping while simultaneously preventing outside contaminants from being drawn in by the tyre's constant flexing action. This inside-out plug protects the tyre's belts and inner structure providing greater protection than a patch which is limited to air retention. A single treatment of Punctureseal will seal numerous punctures as they occur without the need to stop, remove and dismount the tyre as compared to a patch.

- Q – Will Punctureseal dry out or ball up in the tyre?

- **A - No!**

- Punctureseal is a long-term puncture and air maintenance solution rather than a temporary repair and is formulated to not separate, solidify or ball up. Because it utilizes a tyre's natural rubber recovery, it requires no Latex, adhesives or additives to dry out.

- Q – Will Punctureseal last as long as the tyre?

- **A - Yes!**

- Punctureseal is designed to provide protection for the legal tread life of the tyre. This is possible because Punctureseal's Thixogel™ enables the formulation to withstand heat, sheer and stress caused by the rolling resistance and centrifugal

force generated within a tyre.

- Q – Will Punctureseal rust or corrode rims?

- **A - No!**

- Punctureseal contains an environmentally friendly, advanced proprietary rust and corrosion inhibiting system designed to continuously block their formation. Punctureseal cannot eliminate existing rust or corrosion, but will arrest and impede any additional progression.

- Q – Will Punctureseal attack or corrode steel belts?

- **A - No!**

- Punctureseal contains an environmentally friendly, advanced vapor phase rust inhibiting system specifically formulated to prevent rust and corrosion from forming. Additionally, the Punctureseal formed repair blocks external moisture and contaminants from being drawn in and migrating through the tyre's inner structure.

- Q – Does Punctureseal evenly coat the interior of the tyre?

- **A - Yes!**

- The ability to evenly coat the interior of the tyre is a proprietary attribute directly linked to Punctureseal's Thixogel™ which is the liquid carrier containing the fiber and chemical components that seal out porosity, block air migration and form puncture repairs. Thixogel™ holds these components in a uniform and consistent suspension so that they are present when needed. It additionally has the unique property of transitioning between a gel and less viscous liquid that is visco-elastic in nature and resists shear caused by a tyre's rotation.

- Q – Does Punctureseal cause out-of-balance problems?

- **A - No!**

- Punctureseal will not create a balance problem when installed into well-maintained, properly balanced tyres.

- Q – Is the amount of Punctureseal in a tyre critical?

- **A - Yes!**

- Different vehicles, such as automobiles, commercial trucks and off-road equipment, require different puncture sealing and air maintenance quantities due to varying tyre sizes and intended applications. It is important to closely adhere to the recommended amounts listed in the quantity charts that have been calculated in consideration of tyre and vehicle manufactures' specifications.

- Q – Does Punctureseal freeze in cold climates?

- **A - No!**

- Punctureseal will not freeze when used in a vehicle operating in cold climates. In extreme cold weather below 40°C/F, Punctureseal will slightly thicken, but as the tyre heats up from road friction, Punctureseal quickly returns to its normal viscosity. Punctureseal's operating temperatures are -40°C (-40°F) to +149°C (+300°F).

- Q – Can Punctureseal hide or mask a dangerous puncture?

- **A - No!**

- It is virtually impossible for Punctureseal to hide or mask a dangerous wound. Nearly 40 years of worldwide usage and countless tests that have been performed have proven that



Punctureseal will not seal a tyre that has received a wound that would weaken the tyre's inner structure to a point that could be dangerous. The U.S. Army Tank and Automotive Command (TACOM) in conjunction with the U.S. Army Proving Grounds in Yuma, AZ. (YPG) tested Punctureseal and substantiated that Punctureseal "does not mask catastrophic failures". If a tyre sustains a dangerous wound that damages or weakens the supporting inner structure, the surface rubber and tread are compromised and no longer have the ability to recover to their original moulded form. Because Punctureseal relies on rubber recovery, it is not capable of securely sealing the site. Punctureseal will attempt to slow the escaping air, assisting the driver to come to a safe, controlled stop. Additionally, because Punctureseal contains no adhesives, it is incapable of sealing a cracked wheel. In each case, air and sealant will be observable slowly leaking from the damaged area.

- Q – Is Punctureseal compatible with all tyre components?

- **A - Yes!**

- Punctureseal's formulation is fully compatible with all components in any tyre. Punctureseal has been tested by independent laboratories fresh (new) and even after 40,000 miles, tests results prove Punctureseal exceeds all compatibility requirements.

- Q – Can tyres treated with Punctureseal be retreaded?

- **A - Yes!**

- Punctureseal is compatible with all retreading methods. Independent testing has proven that Punctureseal will retard aging in tyres. Punctureseal-treated tyres exhibit greater rubber resilience when compared to untreated control tyres. Punctureseal increases the casing's ability to support additional retreading cycles. This increased retreadability provides a lower cost per mile. Casing soundness and

retreadability is certified by your professional retread company.

- Q – Does Punctureseal extend tyre life and retard dry rot?

- **A - Yes!**

- Independent laboratory tests have proven that Punctureseal will retard aging within the inner structure of a tyre. Independent testing has also proven that Punctureseal will reduce heat and eliminate migrating air that is directly related to increased tyre and casing life.

- Q – Can Punctureseal maintain correct air pressure?

- **A - Yes!**

- Independent laboratory testing has proven that Punctureseal has the ability to eliminate porosity and air migration. One of the world's largest retread company's headquarters tested Punctureseal for air retention and positive sealing capabilities. It was reported that Punctureseal was the only tyre sealant that they had tested which provided 100% air retention. Although Punctureseal will maintain correct air pressure, we recommend that visual inspection be performed on a per trip basis and complete tyre examinations and air pressure inspections be performed at scheduled PMs.

- Q – Will Punctureseal void tyre warranties?

- **A - No!**

- Punctureseal UK Ltd. has documents from all major tyre manufacturers stating that Punctureseal does not void their warranties. In over 40 years of business there has never been a report of Punctureseal causing a new tyre warranty rejection

or a retread casing rejection. Punctureseal's chemical composition is completely compatible with all tyre components.