

Nitrogen or Air in the tires? Let's Burst the myth and check the reality.

Many of us have been through this myth of filling our vehicle's tires with nitrogen, as it results in better stability, improved drive quality, improved mileage, low maintenance, and so on. Is this correct? We'll be going through the science behind this, follow our practical observations, and bring the conclusion today! Let's get straight to the discussion.

What our observation and experience has to say -

The experiment has been conducted on a Royal Enfield Classic 350 with stock tube tires, and a Hyundai Creta 1.6 SX (Manual) with stock tubeless tires. Both of these vehicles were running on Air-filled tires for 6 months, with regular tire pressure check and optimum maintenance. For the next 6 months, both of these vehicles had Nitrogen inflated into their tires, to see if there's any change in the experience. Both of these vehicles were driven on a long tour on consecutive weeks. The answer is a straight NO.

What it is about not feeling the difference is that the vehicles went into regular maintenance, with wheels properly balanced and aligned. We always did make sure that there's no scope of valve leakage or any other errors while the vehicles are being serviced. The only difference that we could notice is that the tire lost some pressure while being nitrogen-inflated at a difference of around 1 week more, as compared to being air-inflated. As a matter of fact, when the vehicles

were healthy, and the tires were observed at this state, no practical difference in ride quality, mileage or anything was observed.

What science has to say -

Based on the remarks of the consumers that nitrogen-inflated tires prevent oxidation of the tires, keeps the rubber cool during a long run, makes the supercars and passenger cars highly efficient and so on, we've collected scientific explanations to burst all the myths regarding nitrogen-filled tires.

The gaseous specifications -

As you must have learned in the school that the air we breathe is around 75% nitrogen, 21% oxygen and 3-4% miscellaneous gases.

On the other hand, Nitrogen is just 2.68% bigger in molecular basis.

What we can derive from this scientific evidence is that You're already inflating your tires with 75% nitrogen, when having compressed air filled up.

Secondly, science says that even if you fill a noble gas into the tires, the technical aspects of any vehicle are not going to be affected.

The gas is meant to maintain the pressure into the tires and any other technical aspect of the vehicle is not dependent upon what gas you're using in the tires. This simply means that improved mileage, improved ride quality, and stability are all myths.

Also, People say about prevention of oxidation and corrosion, but the fact is that the rims are already made of alloys for the prevention, and even if you fill the tires with Nitrogen, the tires from the outside are still exposed and vulnerable. They are subject to water, oxygen, and every other corrosive element. No practical damage on a short-term has ever been observed.

Keeping all the facts and observations in mind, we can conclude that Nitrogen inflation is just a waste of money. Even if you got to fill compressed air more often, you're still saving a lot of money, and not giving up on the maintenance of your vehicle. Happy driving!