ExxonMobil

# Better tire performance starts with optimal air retention

Maintaining optimal tire air pressure results in several benefits*

## Enhanced in-use efficiency

**1%–2%**
decrease in fuel consumption

## Improved safety and longer life

**7%** decrease in braking distance

**8%** increase in tire life

## Improved environmental impact

**8 million**
tons of $CO_2$ saved per year

## Significant savings

**1 billion**
gallons of fuel saved per year.

**Optimally designed inner liners deliver consistent performance, efficiency and reduced maintenance.**
Available and proven halobutyl technology makes it possible to reduce fuel consumption and carbon emissions — all while optimizing air retention.

## The challenge

Consumers are unaware that average air pressure loss is 2.4% per month

## The solution

Inner liners that improve air-barrier performance

### Why do we need a national maximum standard for inflation pressure loss rate (IPLR)?

- Only 9% of vehicles surveyed in the U.S. have four properly inflated tires†
- Performance standards testing (uniform tire quality grading or labeling) is only conducted on fully inflated tires, which don't reflect realistic conditions

* Based on testing conducted by ExxonMobil Chemical
† Source: https://rma.org/news/survey-shows-america-needs-inflation

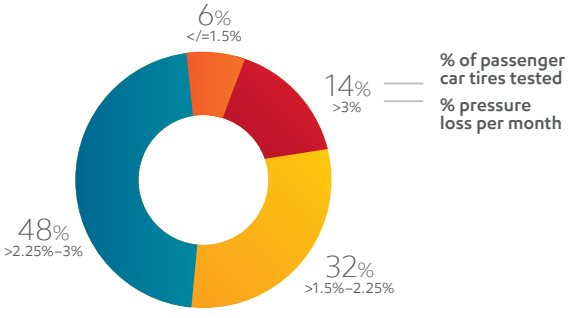
# Strength. From the inside out.

**When the rubber meets the road, it's what's on the inside that counts.**

Establishing a national maximum standard for inflation pressure loss rate (IPLR) will ensure consistently reduced fuel consumption and carbon emissions. IPLR, which measures the percentage of air pressure loss per month, varies widely depending on the composition and gauge of tire inner liners. The industry already has the capability to respond to improved air retention performance standards:

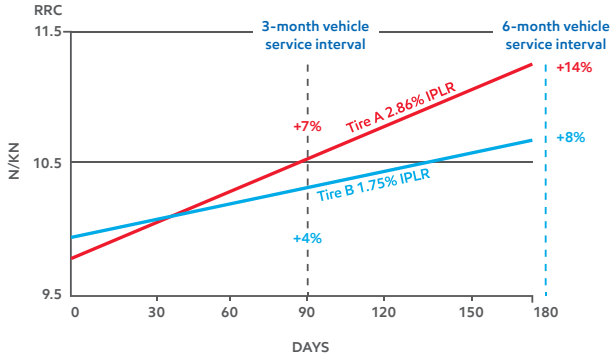
- **Recognized ASTM standard exists**
- **Three OEMs (GM, FCA, TESLA) already specify IPLR standards**
- **Tire inflation pressure impacts in-use rolling resistance (RR) efficiency**
- **In-use efficiency and performance can differ greatly from the label value**
- **Fuel efficiency improvements can be lost in weeks due to tire deflation**

## IPLR measures % air pressure loss per month and varies widely




Based on >300 passenger car tires purchased globally and tested per ASTM F1112 (Static)

## Dynamic IPLR




Every 10% RRC increase can decrease vehicle fuel economy by 1%–2%

**Learn more at butylrubber.com**



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