

# Exxpro™ 3563

Specialty elastomer

# ExxonMobil



## Boost tire performance

Exxpro™ 3563 specialty elastomer is the most advanced material for innerliners in the world. It delivers step-change performance in innerliner permeability – the most significant factor in improving air retention and boosting vehicle performance.

## Performance tests

ExxonMobil has made significant investments of time and resources to develop robust test data studying the connection between air retention and tire performance, including in-use rolling resistance.

Extensive testing verifies the exceptional value of Exxpro 3563. Compared to today's most common innerliner composition – 80% halobutyl (HB)\* and 20% natural rubber (NR) – 100phr Exxpro 3563 can improve air retention by 20-50%.



\*HB acronym includes both bromobutyl and chlorobutyl

specialty elastomer test data

## Three tests

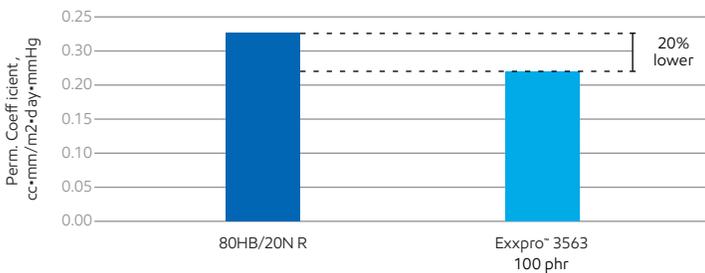
In three types of testing, Exxpro™ 3563 demonstrates superior Inflation Pressure Loss Rate (IPLR) and significantly improved rolling resistance (RR) compared to an 80HB/20NR blend.

	80HB/20NR	Exxpro™ 3563
<b>Static IPLR</b> (% Loss/Month)	<b>3.01</b>	<b>1.79</b> 40% improvement
<b>Dynamic "On-Road" IPLR</b> (unique methodology) (% Loss/Month)	<b>6.69</b> (2x worse)	<b>4.80</b> 28% improvement
<b>Rolling resistance mimicking</b> <b>real road conditions</b> (air loss and tread wear) (12K miles, 12 months)	<b>12.84</b> (kg/T)	<b>11.25 (kg/T)</b> 12% improvement

## Low permeability

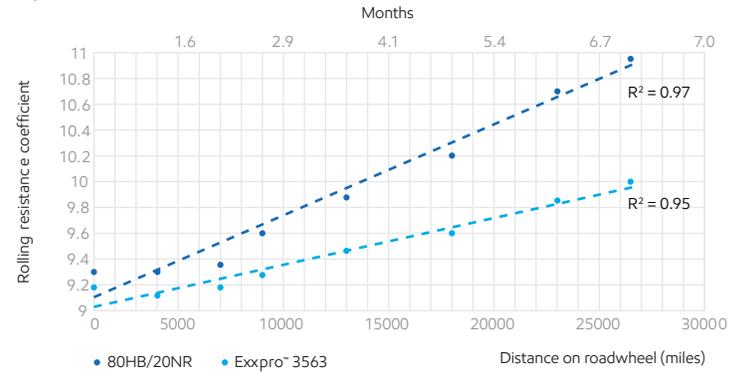
In extensive testing, Exxpro 3563 demonstrates clear superiority to an 80HB/20NR blend in permeability – the most significant factor for innerliner air retention. This step-change improvement in permeability is due to:

- Lower segmental mobility of the bulky aromatic pMS group
- Lower free volume (and higher T<sub>g</sub>) due to the presence of the aromatic pMS group



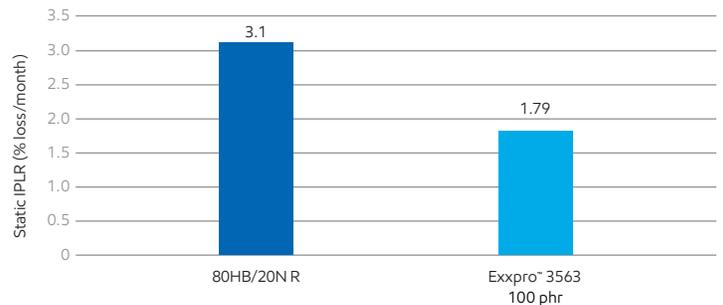
## Improved in-use rolling resistance

Exxpro™ 3563 demonstrates lower in-use rolling resistance than global average tires (80HB/20NR) due to improved air retention. Most manufacturers measure RR at zero which is not an accurate representation.



## Improved permeability

In a 42-day static Improved Inflation Pressure Loss Rate (IPLR) test accepted by most global majors (based on test method ASTM F 1112), Exxpro 3563 provided 46% improvement in permeability, the key factor in air retention, compared to an 80HB/20NR blend.



The next generation of elastomer for the next generation of tires.

Find out more about Exxpro™ 3563 and how it can give your tires a competitive edge at:

[www.exxonmobilchemical.com/exxpro](http://www.exxonmobilchemical.com/exxpro)