

**HANKOOK**  
driving emotion



## **ventus Prime 3**

*The perfect balance between performance and safety*



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# ventus Prime<sup>3</sup>

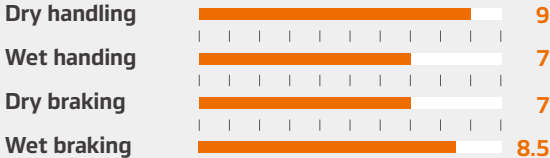


### Technology icon

- Alignment indicator
- Chamfer sipe
- Noise prediction

### Performance icon

- Dry handling
- Wet handling
- Dry braking
- Wet braking



### Technical profile

Speed symbol : H, V, W, Y  
 Tread width (mm) : 185~245  
 Series (aspect ratio) : 40~65  
 Rim diameter (inch) : 15~18

## Key performance

Improvement in performance compared to predecessor.

■ Conventional  
■ **ventus Prime<sup>3</sup>**



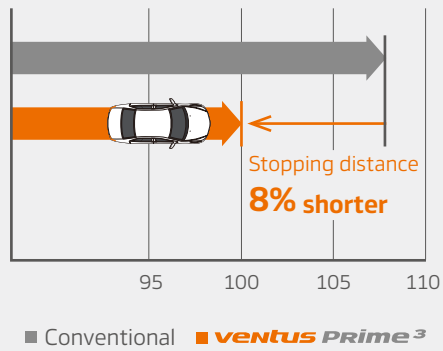
Design features and technology

# Wet performance

## A Wide 4 channel grooves

Provides superior wet performance through rapid drainage.

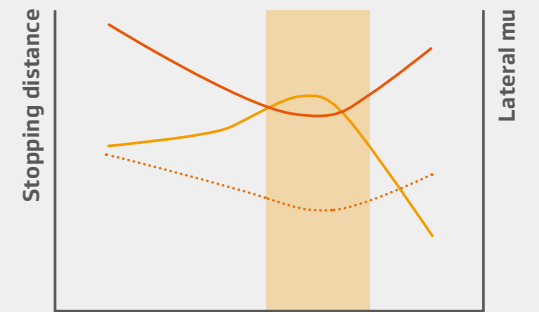
### Wet braking



## B Optimised design for specific grooves by position.

All groove depths are designed by their position for optimised stiffness.  
 → Minimised trade-off of dry and wet performance to ensure the balance of each.

### The actual contact area ratio



Optimised actual contact area ratio adopted.

— Wet handling — Wet braking ... Dry braking

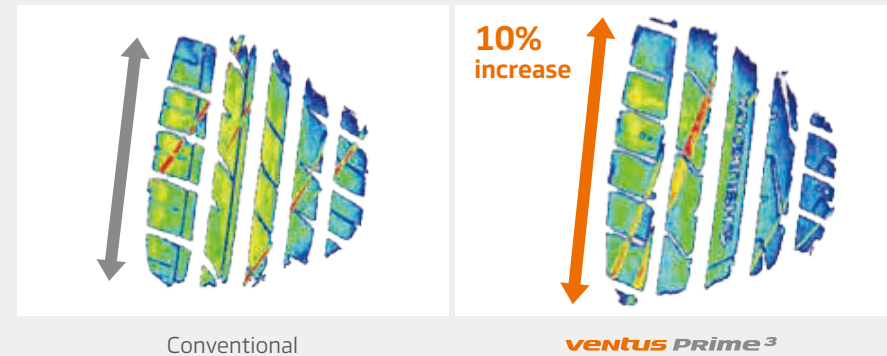
Design features and technology

# Dry performance

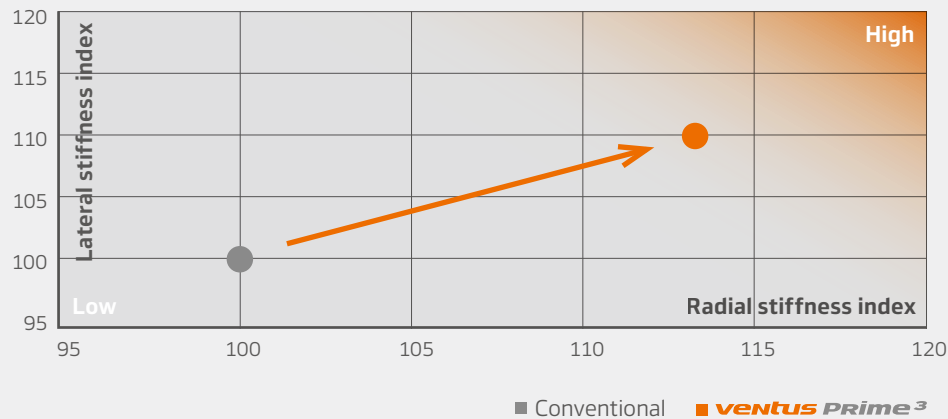
## Enhanced tread block stiffness

By applying an optimised design technology the actual contact area ratio is increased and stiffness improved.

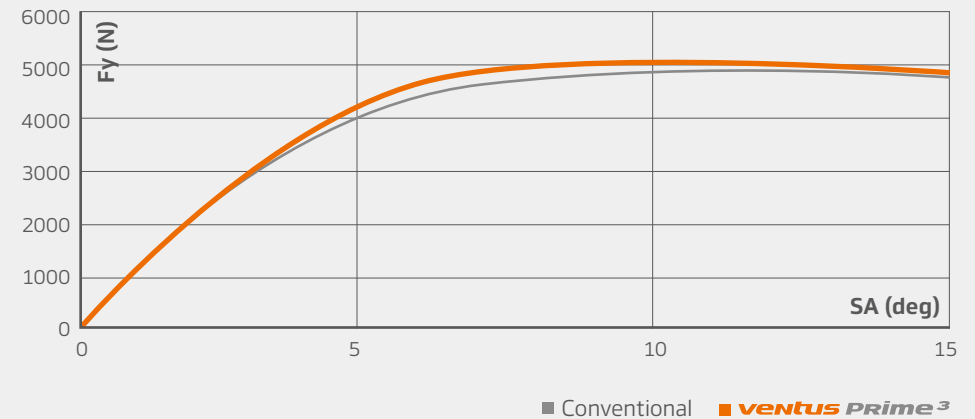
→ Superior handling and braking performance on dry surfaces.



## Pattern stiffness



## Tyre stiffness





Design features and technology

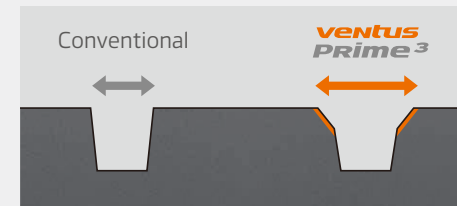
# Dry performance



## C Optimised new profile

The optimised profile ensures the best tyre performance in high-speed driving conditions.

## D Groove chamfer



The contact area is widened instantaneously when braking by groove chamfer.  
→ Improved traction performance.



Design features and technology

# Dry performance



## **F** Hybrid hardness design

Optimised handling performance by dual stiffness of ribs.

## **F** Solid outside block



Provides stability and superior handling performance through maximising the outside block rigidity.

## **G** Rib type tread



Enhanced handling and rolling resistance performance.



Design features and technology

# Noise

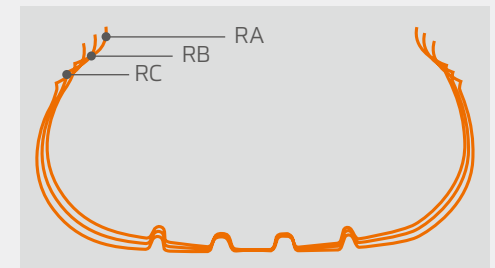
## H Noise care pitch



Noise reduction through an optimised pitch design.



## I Optimised lateral groove angle



The above simulation was conducted using a variety of contact edge radius.

Design features and technology

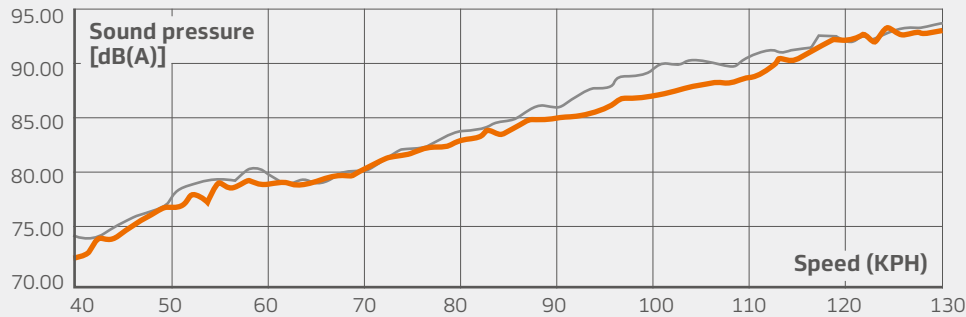
# Noise

Even after wear, pattern noise is reduced compared to the existing product through new main groove positioning technology.

## Before wear

■ Conventional ■ **ventus Prime<sup>3</sup>**

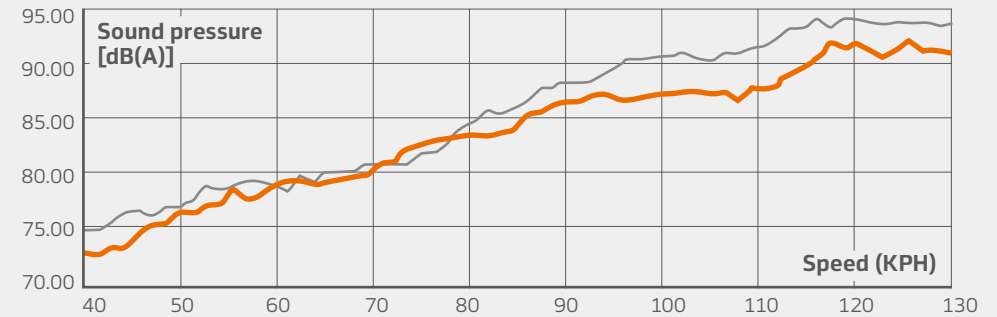
### Overall level average



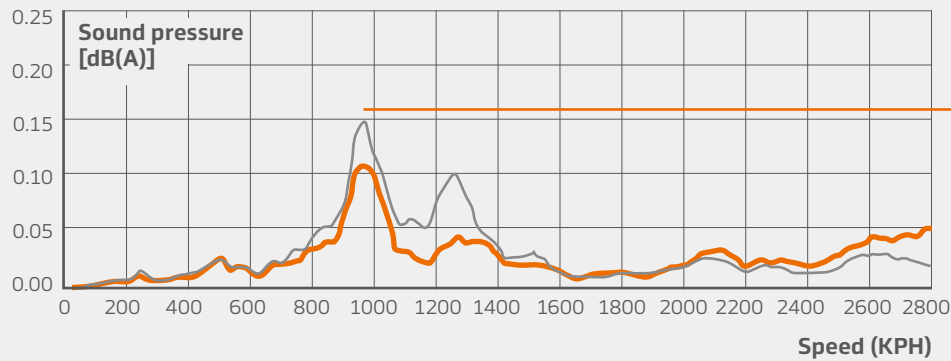
## After driving 20,000Km

■ Conventional ■ **ventus Prime<sup>3</sup>**

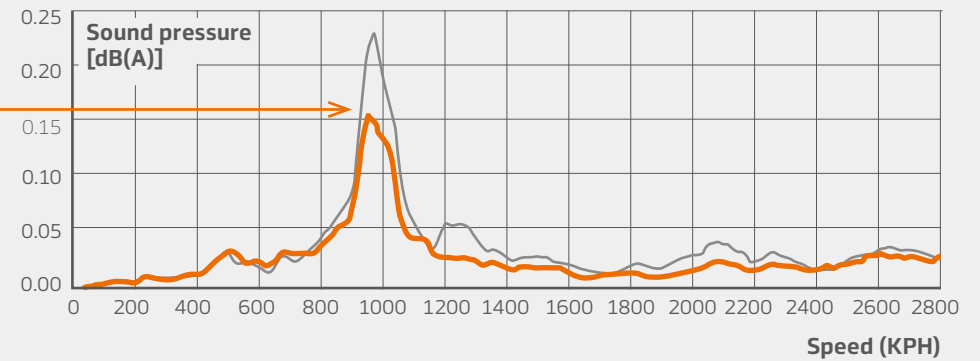
### Overall level average



### Frequency analysis average



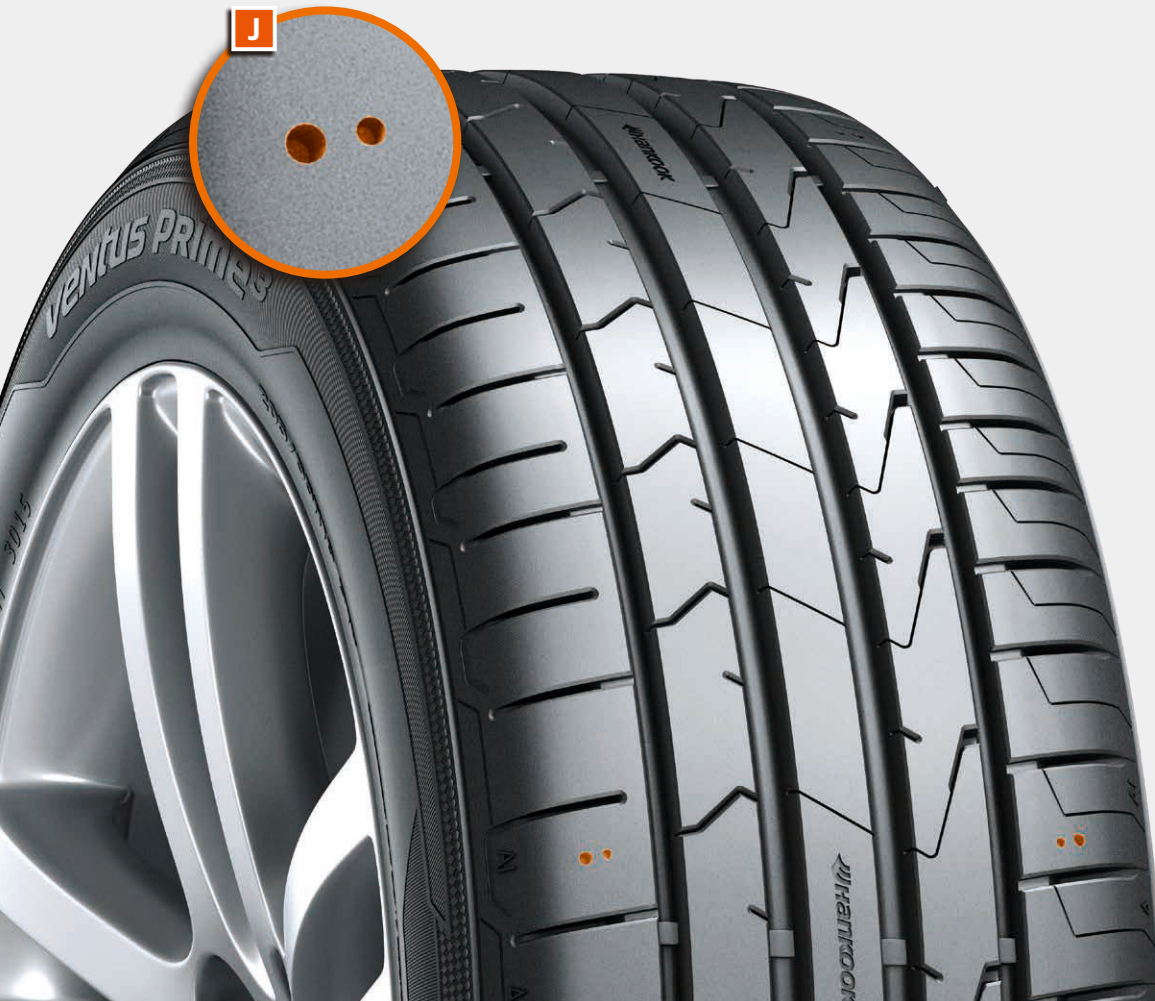
### Frequency analysis average



Design features and technology

# VAI (Visual alignment indicator) system

The visual alignment indicator provides an easy to check tyre alignment. Compare the wear on sipes located on both of the tyres shoulders and then realign if necessary.



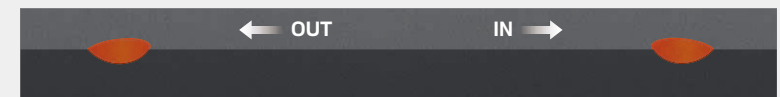
## VAI

Indicator marks that have different depths can help easily identify the degree of tyre wear.

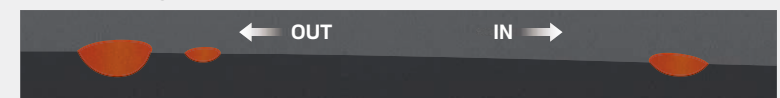
Before use



After use (regular wear)



After use (irregular wear)



Indicator marks that have different depths can help easily identify the degree of tyre wear.



Design features and technology

## Anti-air resistance sidewall

### K Anti-air resistance sidewall

Anti-air resistance sidewall design marked with check shaped dimples minimises noise and vibration levels by reducing air turbulence when driving.

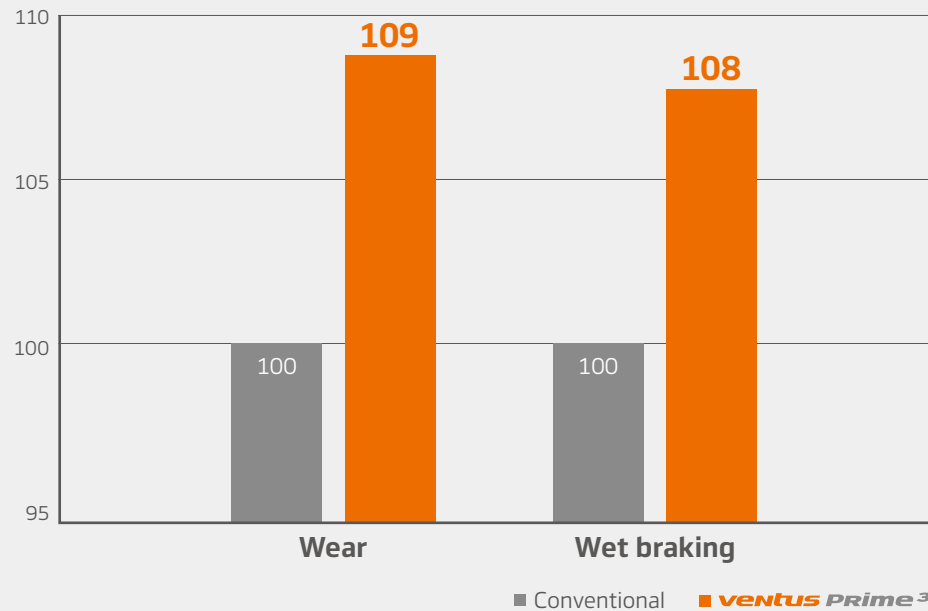


Design features and technology

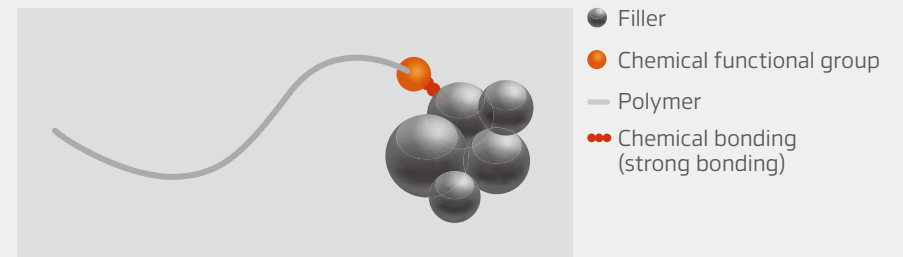
# Compound

## New compound

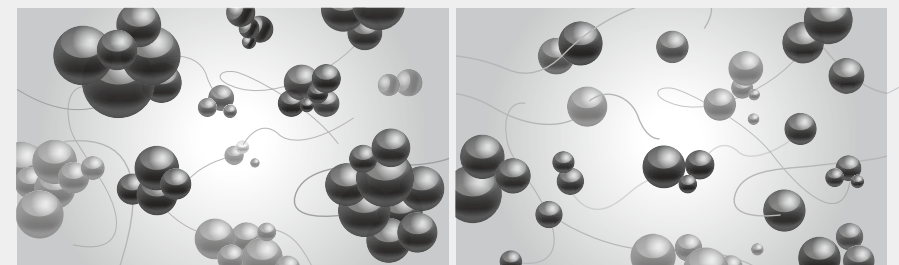
New compound improves wet and wear performance without sacrificing other performance.



Applying a high molecular weight functionalised polymer means wear performance is improved.



Optimised mixing technology for high loading filler and polymer means wet and wear performance is improved.



Better dispersion

Design features and technology

# Tyre structure

## High grip silica compound

Improved dry / wet traction and lower rolling resistance.

## Jointless full cover reinforcement belt

Ideal tread strength.

## Wide steel belt layer

Better dry and wet handling.

## Equilibrium rayon carcass line

Enhance sidewall stiffness and durability.



## High stiffness bead filler

Better handling and steering response.

## Strong single strand bead wire

Improved uniformity and tyre fitting.



