HANKOOK
driving emotion

product design award 2012

GOOD DESIGN AWARD 2014

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ventus S1 evo²

The new VENTUS S1 evo² high-end performance UHP tire

Contents

The best balance between wet and dry performance!

A controlled and precise cornering ability
when driving at higher speeds.
Satisfies both performance and environmental needs
through minimization of rolling resistance and
optimal implementation of the profile.
Dry performance maximization
by optimized block stiffness.

VENTUS S1 evo² engineered by DTM Technology

DTM Technology

Hankook tire is the official sponsor of DTM - The most popular international touring car series.

HANKOOK driving emotion
Official Partner of DTM

ventus S1 evo²

Technology icon

Alignment indicator | Intercooler | Compound

Performance icon

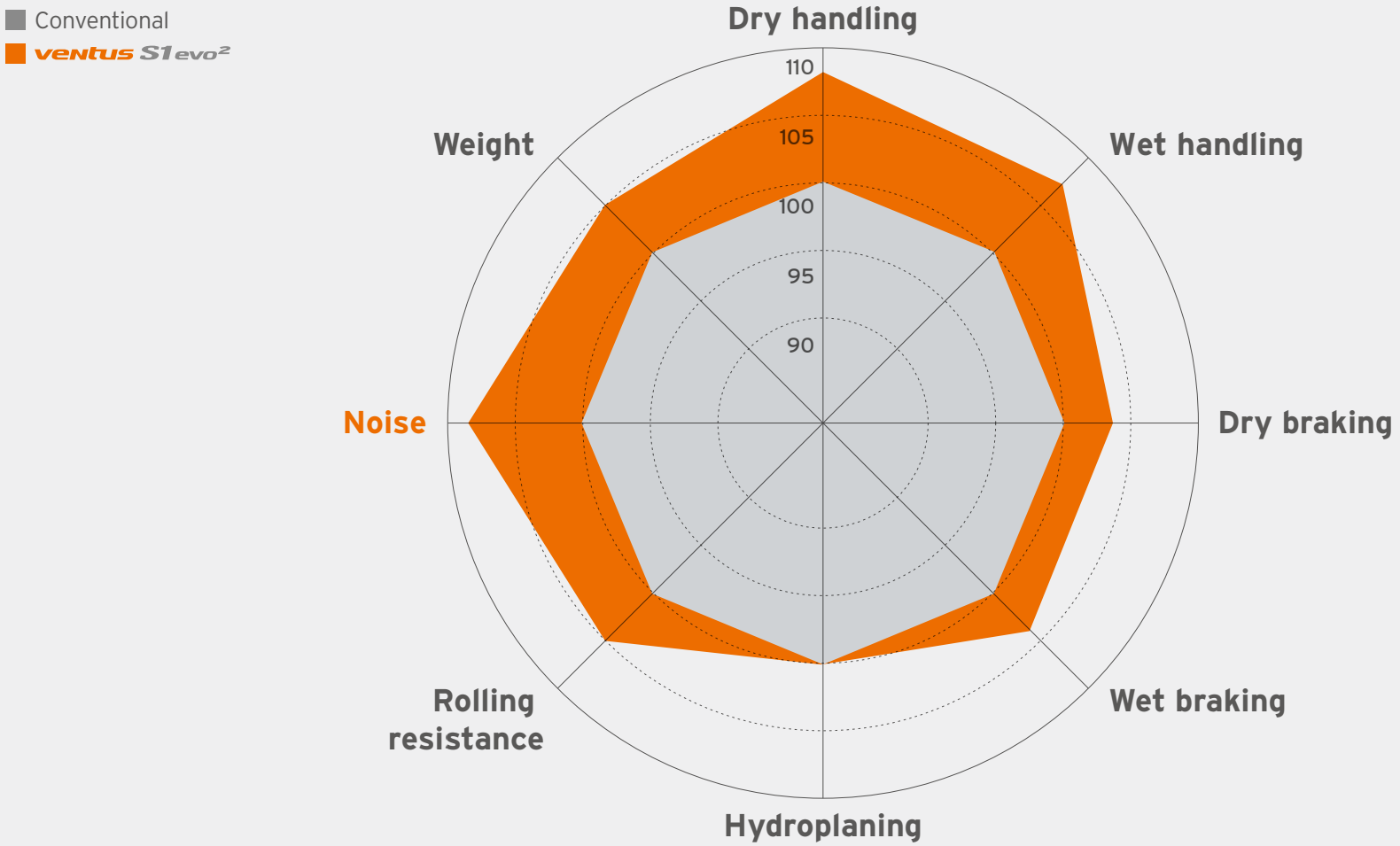
Low noise | Low-RR | Dry braking

Technical profile

Speed symbol : V. W. Y
Tread width : 205~335
Series : 30~60
Rim diameter : 16~20

Key performance

Improvement in performance compared to predecessor.



High-end sport performance through advanced technology

Aqua driving control

Providing superior wet performance through rapid drainage.

Intercooler

Controls excessive heat build up.

Alignment indicator

Driver can check status of the vehicle alignment themselves through IN / OUT wear check.

Triple driveline

As wear progresses down to TWI(tread wear indicator), there is no loss in performance.

Cooling system

Speeds up water drainage and improves heat radiation at high speed.

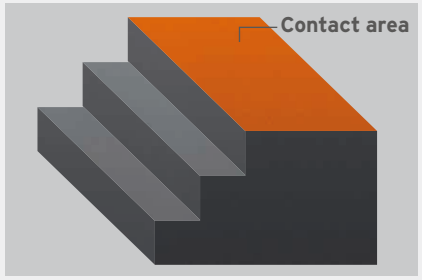
Triple layered block

As the tire wear progresses down to TWI, traction performance is improved!

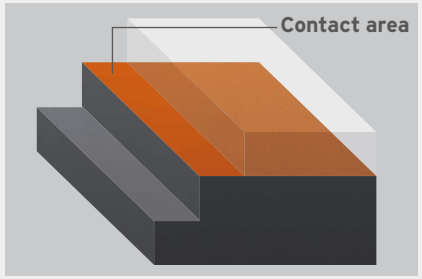
A Triple layered block

The staircase arrangement of the outer rib blocks,
is designed to increase the tire contact patch with the surface
as the wear rate increases.

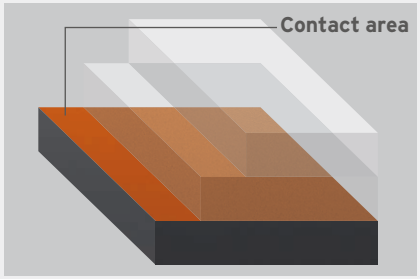
Before use



After use



1'st surface worn



2'nd surface worn

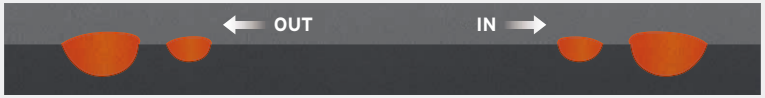
VAI siping system (alignment indicator)

The visual alignment indicator (VAI) siping system provides an easy way to check tire alignment.
Compare the wear on the sipes located on both of the tire's shoulders, and then realign as necessary.

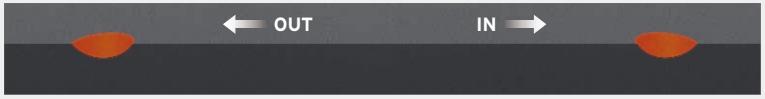
B VAI

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

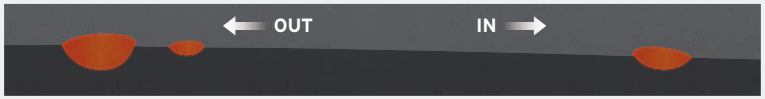
Before use



After use (regular wear)



After use (irregular wear)

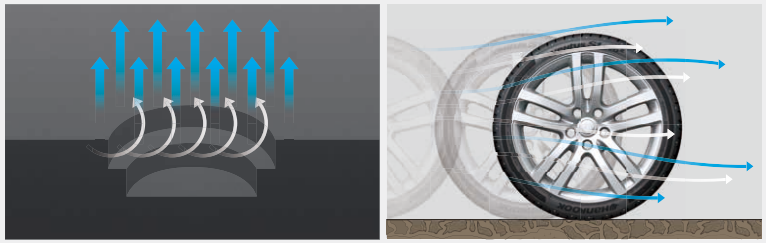


Indicator marks that have different depths can help easily identify the degree of tire wear.

Intercooler and cooling system

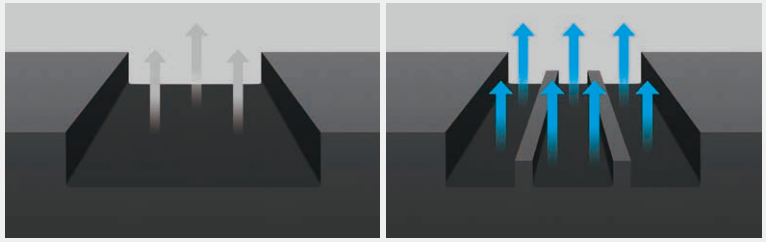
C Intercooler

Heat regulated by generating turbulence on grooves on the tire surface.



D Cooling system

Increased contact area induces the rapid release of heat and ensures excellent performance in driving conditions.



Conventional

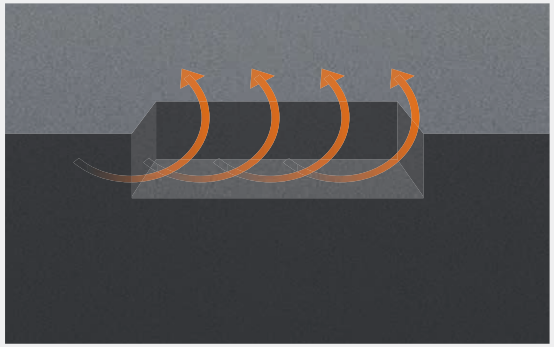
ventus S1 evo²

Aero dynamic sidewall

Aero sidewall design through rectangular dimples minimized noise and vibration level by reducing air turbulence in driving.

E Aero-sidewall dimple

Dynamic graphic design that matches tread pattern brings out sportiness on the sidewall. Aero dynamic sidewall design through rectangular dimples minimize noise and vibration levels by reducing air turbulence whilst driving.



Tire structure

High grip silica compound

Improved dry/wet traction and lower rolling resistance.

Jointless full cover

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

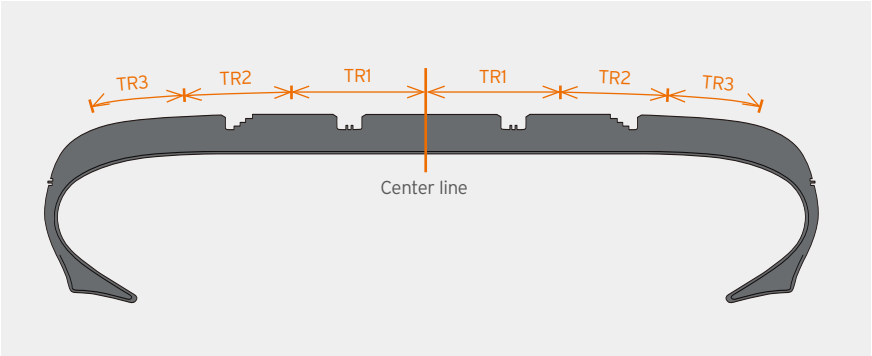
Improved uniformity and tire fitting.

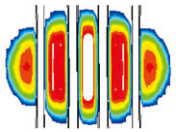
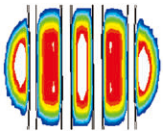
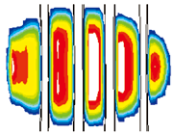
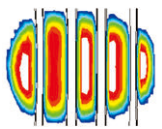
New profile for hydroplaning resistance

DTM Technology

Optimized triple TR(Tread Radius) system based on DTM racing profile technology ensures the best tire performance in high-speed driving condition.

DTM Technology

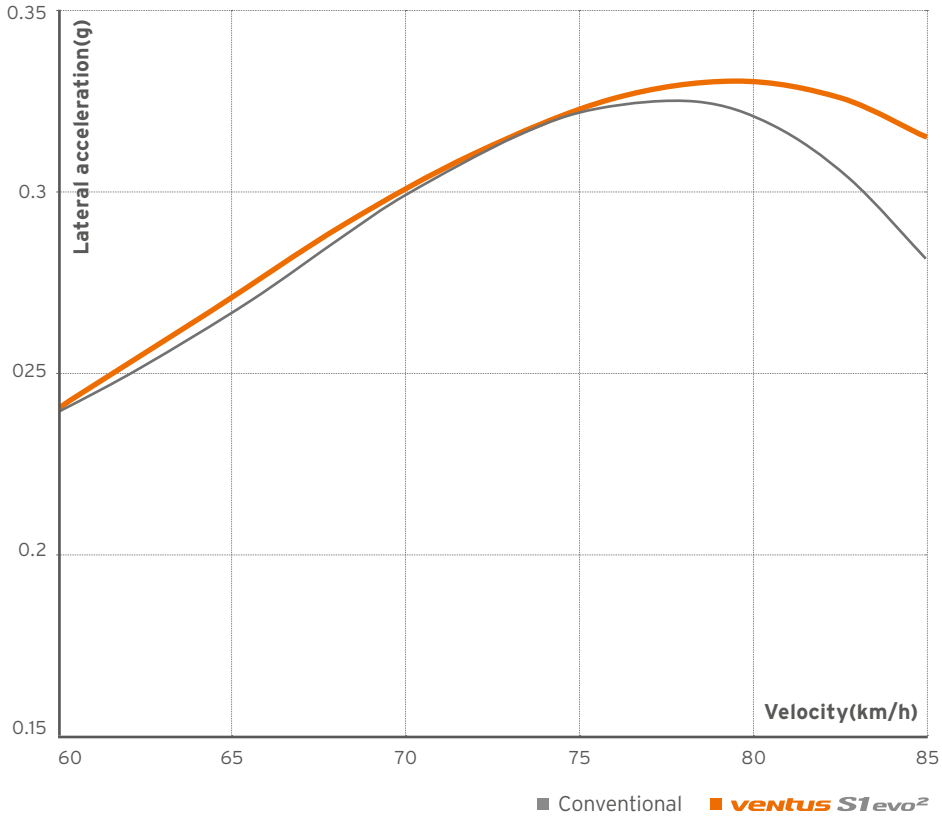


	Conventional	ventus S1 evo²
Vertical load		
Lateral load		

Increased contact area · Excellent handling performance.

Improved shoulder roundness · Improved hydroplaning performance.

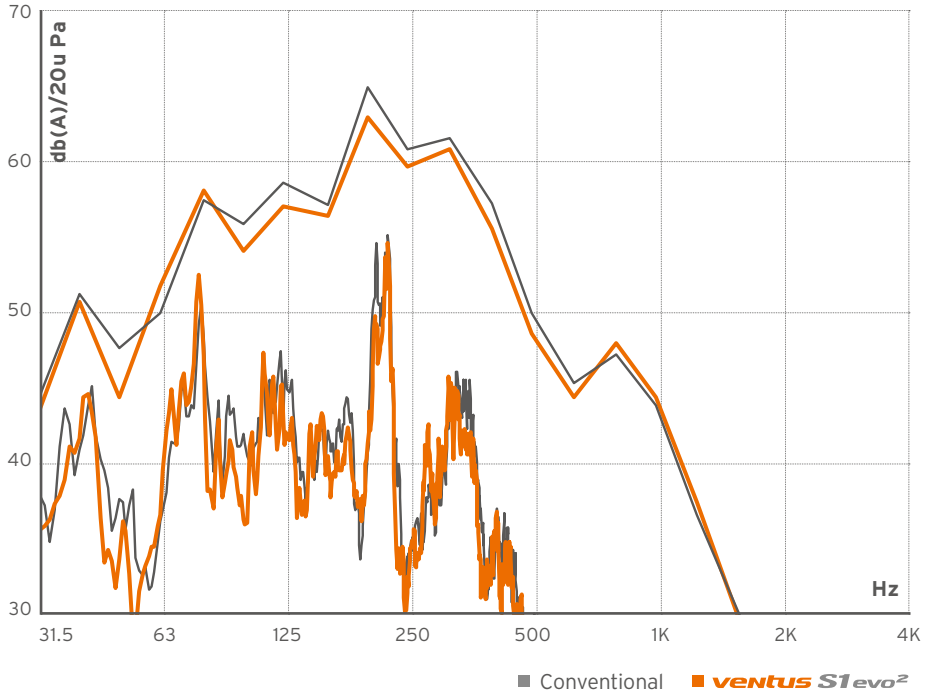
Hydroplaning lateral G



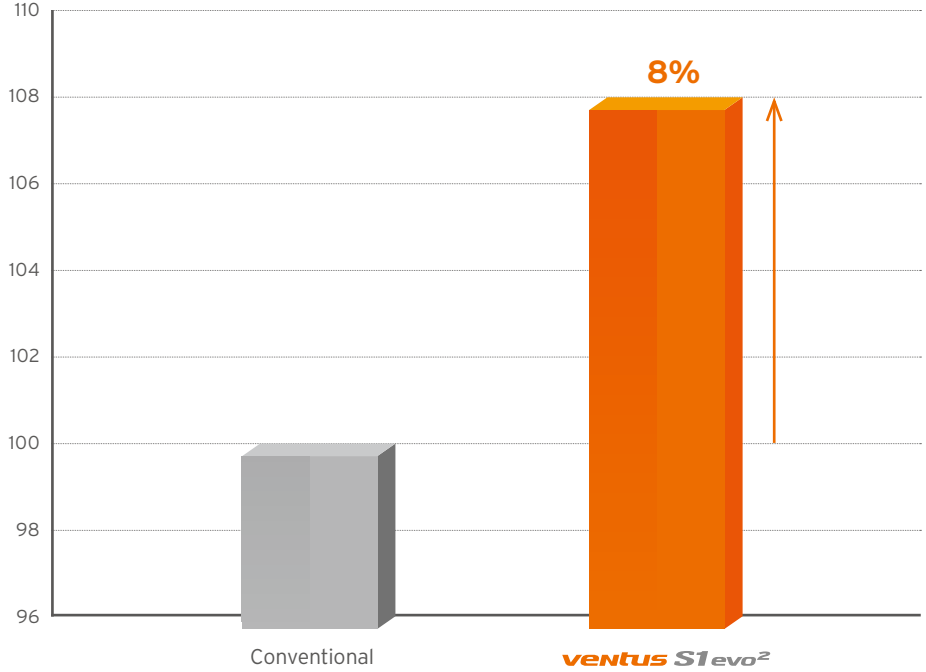
Noise

Optimized pitch length and order optimized lateral groove angle.
→ Noise reduction across the entire area compared to the existing products.

Vehicle noise measurement



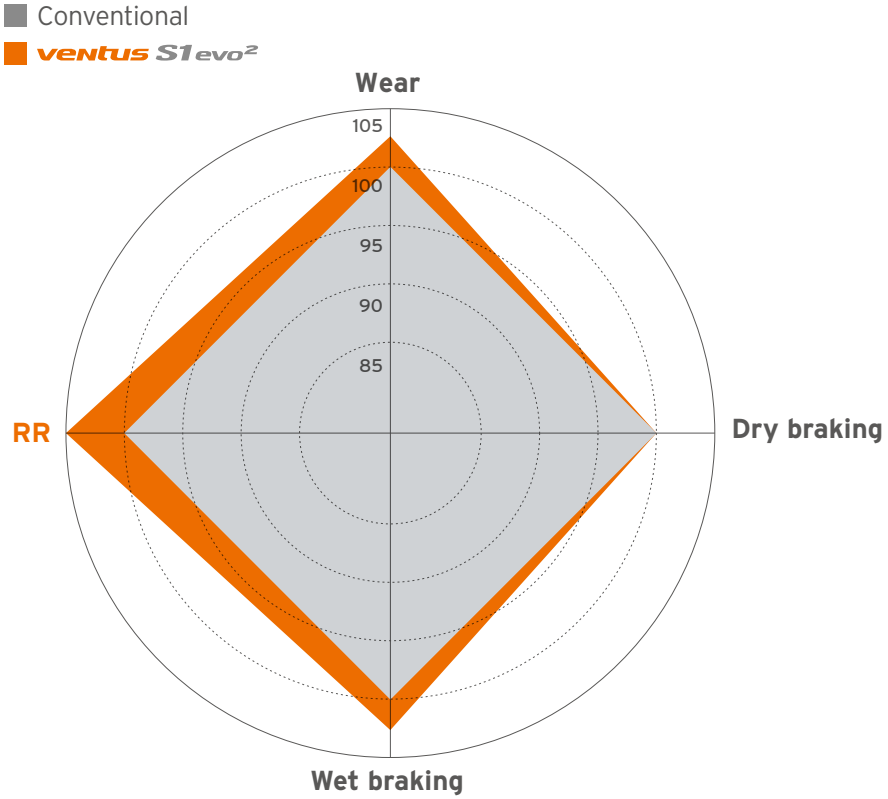
Noise subjective testing



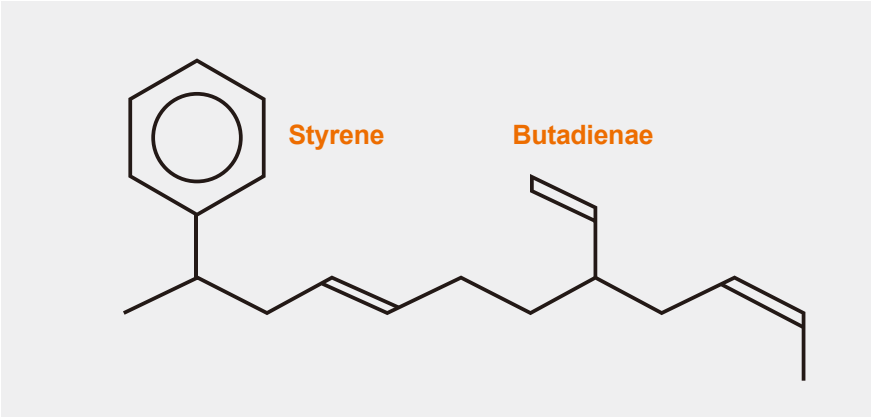
Compound technology

By applying high styrene polymer featuring high hysteresis, rolling resistance performance is improved.

Rolling resistance performance



High styrene (Bulky)

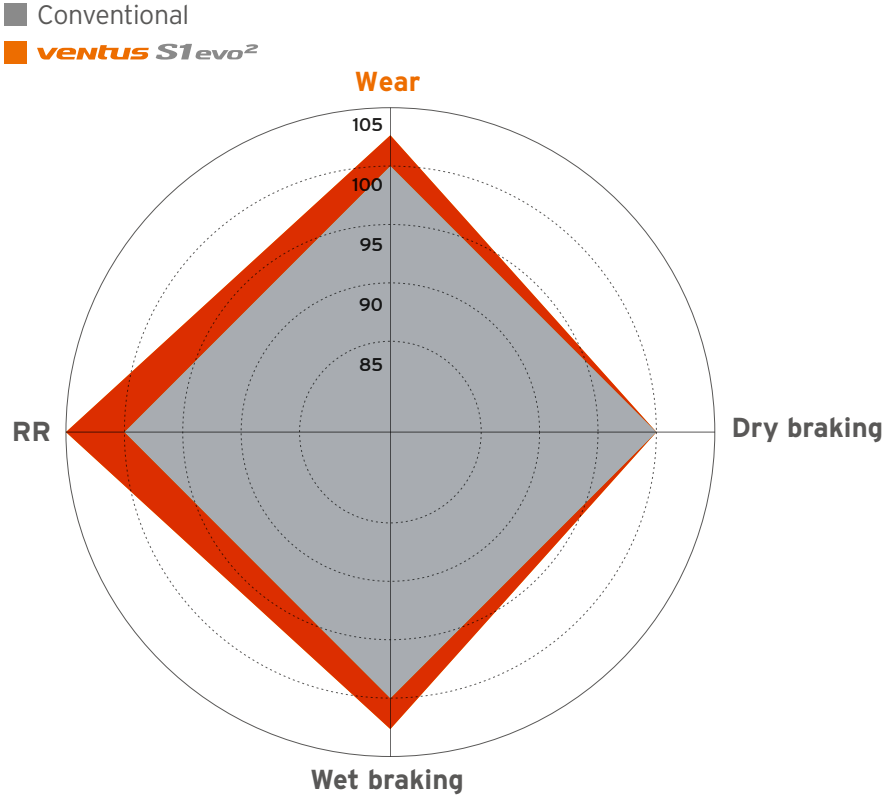


High hysteresis.
High wet braking performance.

Compound technology

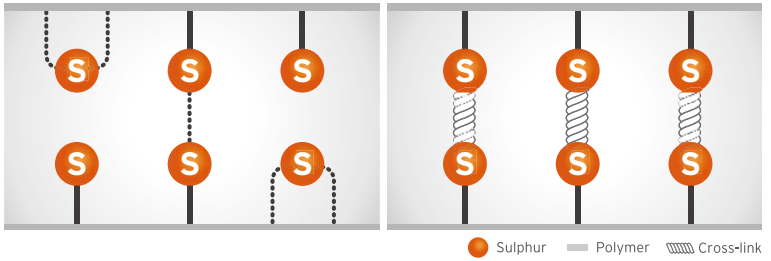
By applying an optimized cross-linking system, durability of abrasion performance is improved.

Durability of abrasion performance

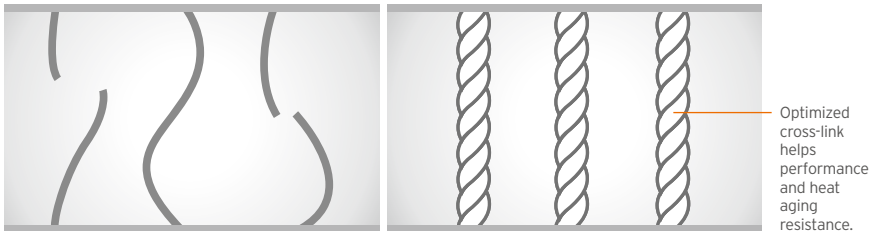


High stirene polymer compound

Chemical structures



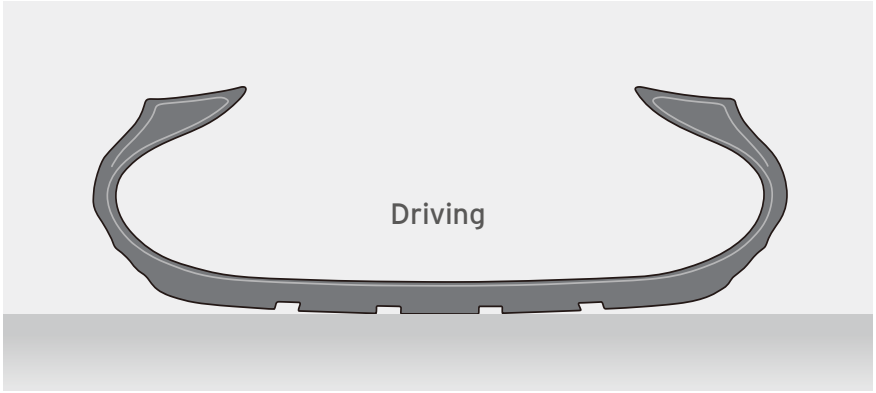
Features

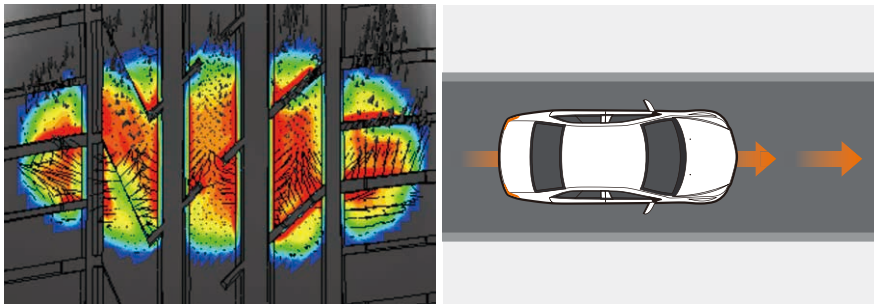


Dry and wet performance (handling)

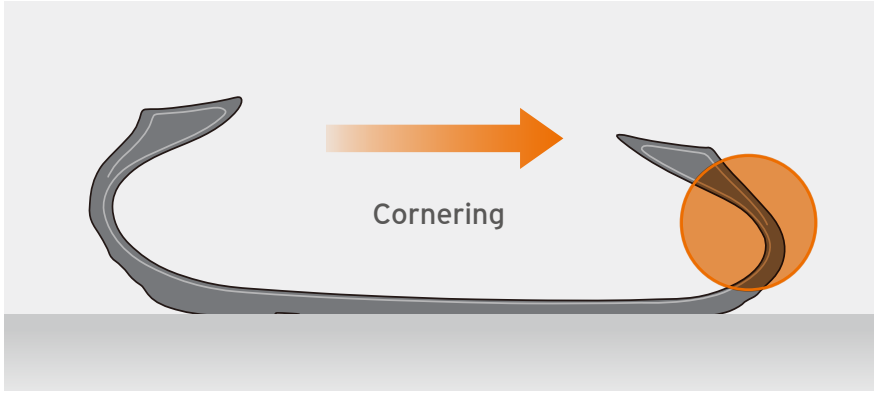
Even loads transfer vertically and laterally, they maintain a stable foot shape through an optimal design based on multiple tread radius profile and equilibrium carcass line.
→ Providing the best handling performance.

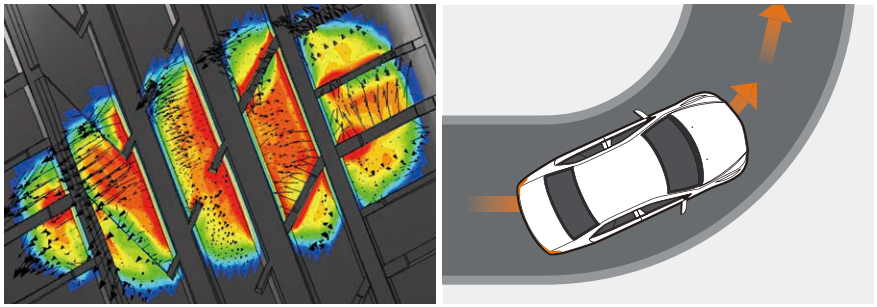
Traction force at driving





Traction force at cornering

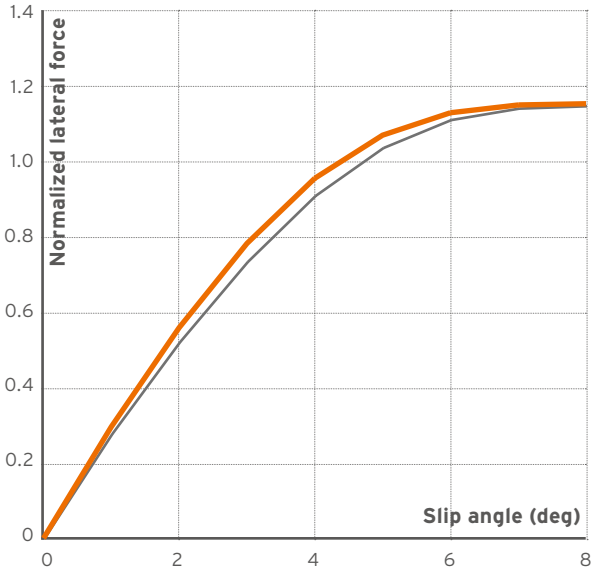




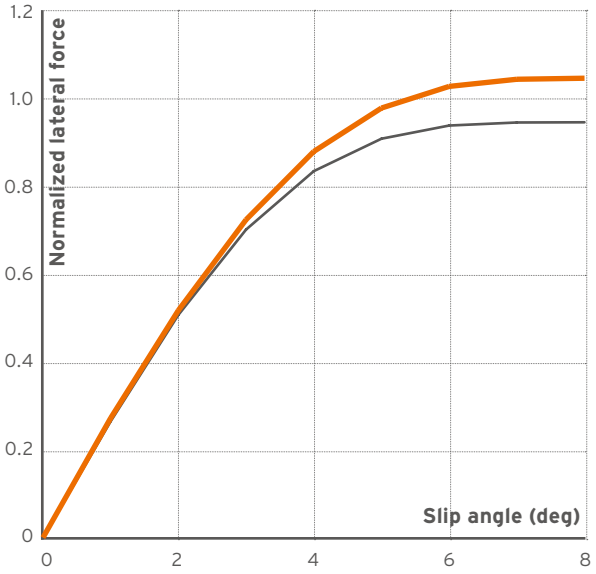
Dry and wet performance (handling)

Apply high grip compound and optimal structure to maximize front / rear wheel grip.
Despite the grip balance of front / rear combination, obtained faster response compared to existing products.
→ Maximum grip improved.

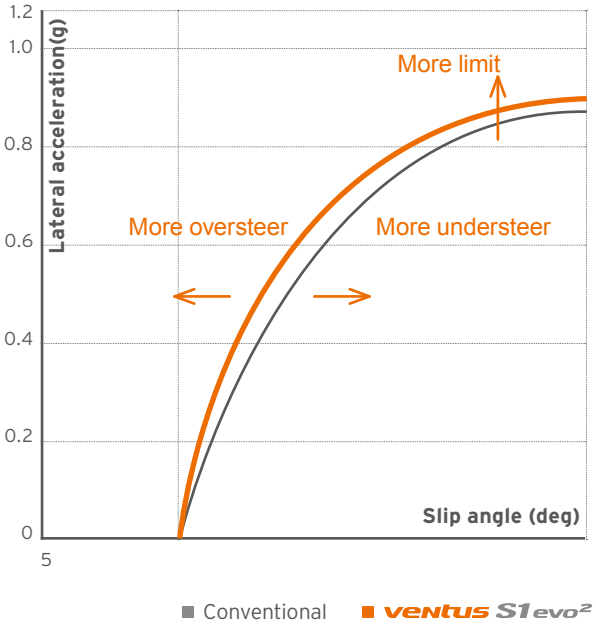
Front lateral friction



Rear lateral friction



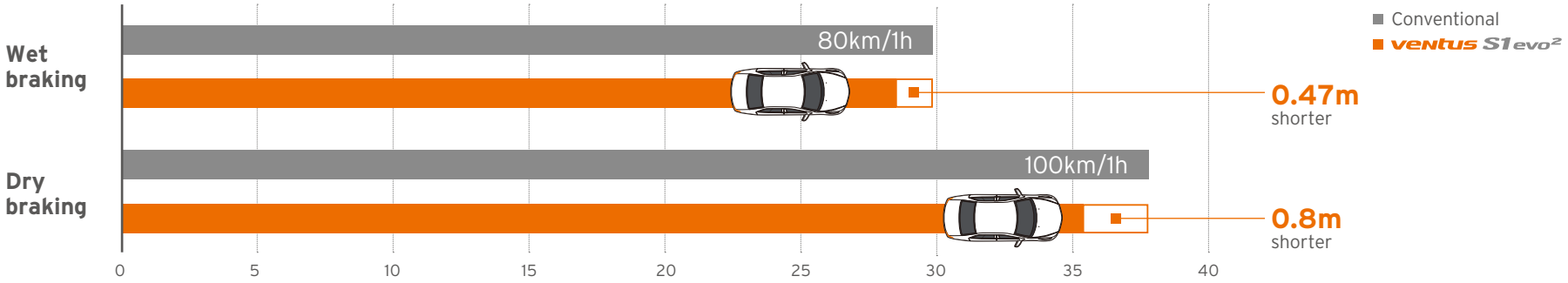
Understeer and oversteer tendency



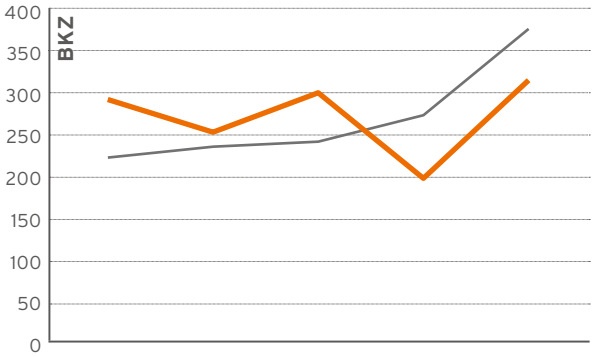
Dry and wet performance (braking)

Extremely short braking distances on wet and dry surfaces by optimizing balance of the tread block stiffness.

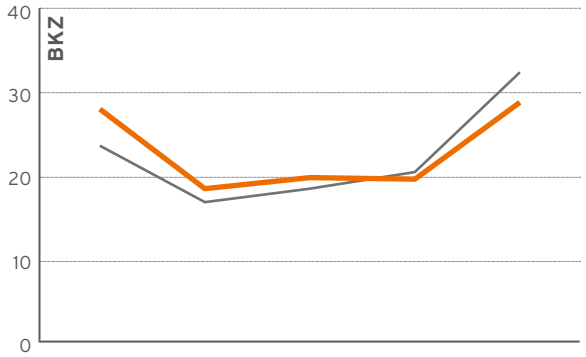
Stopping distance



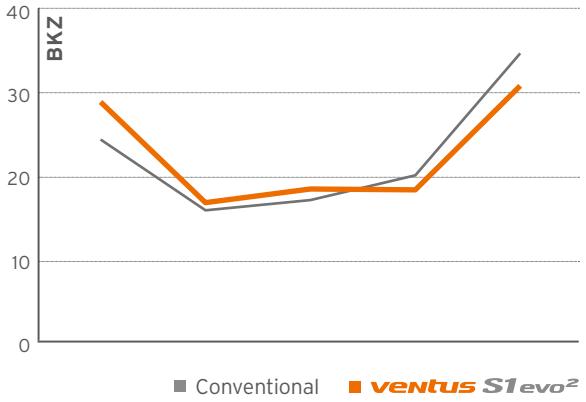
Vertical



Longitudinal



Lateral

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