

ION INNOVATIVETM
TECHNOLOGY

To feel maximum performance from your EV, you need iON tires developed exclusively for EVs. iON utilizes Hankook Tire's iON INNOVATIVE TECHNOLOGY, to perfectly bring out the best in electric vehicles and optimal driving performance.

Regular Tires



ICE Tire basis

VS

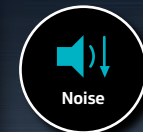
Tailored Specifically for Electric Vehicles



iON
EV Exclusive
Tire



iON INNOVATIVE™
TECHNOLOGY



max **18%**
Noise Reduction



max **15%**
Longer Tread Life



max **6%** increased
Battery Range



max **10%** improved
Driving Stability

EV Feature basis

* Comparing iON evo to Ventus S1 evo3



EV Characteristics

EV-Specific Tire Needs

Why **iON**
iON INNOVATIVE™
TECHNOLOGY

Quiet Operation

Low Noise
for Comfortable Driving



i Sound Absorber

Added Battery Weight
(up to 30% increase in total car weight)

Longer Tread Life
for Heavier Load



i Super Mileage

High Instant Torque

High Grip
for Rapid Acceleration and Braking



i Perfect Grip

- **Long Charging Time** (0.5 to 8 hrs)
- **Travel Range** ≈ 400 to 500 km/charge

Low Rolling Resistance
for Less Energy Loss



i Extreme Lightness



Battery EV



Plug-in
hybrid EV



iON

* Battery EVs and Plug-in Hybrid EVs share similar characteristics, making them equally well-suited for EV-specific tires.

iON possesses a system of EV-exclusive tire technology specifically designed to meet the demands of electric vehicles.

iON INNOVATIVE™
TECHNOLOGY

	Low Noise i Sound Absorber	Longer Tread Life i Super Mileage	High Grip i Perfect Grip	Low Rolling Resistance i Extreme Lightness
Profile & Structure Technology	Noise Redux Quiet Flex	Round Even	Grip Boost	Power Reserve
Pattern Technology	Noise Guard Opti Pitch	Opti Tread	Grip Claw	Cooling Tread
Compound Technology	Silent Tread	ProDurable Compound	ProGrip Compound	ProCoupling Compound Opti Cure

Hankook Tire secured 326 EV technology patents, 58 of which are used exclusively in iON.

58 EV patents exclusive to iON

i Sound Absorber
9 patents

i Super Mileage
11 patents

i Perfect Grip
23 patents

i Extreme Lightness
15 patents

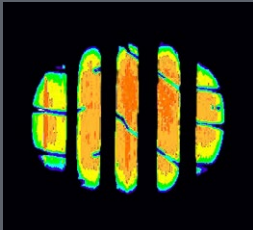
Noise Guard
Zigzag
8 patents

EP Application No. :
20206989.4 and 7 others



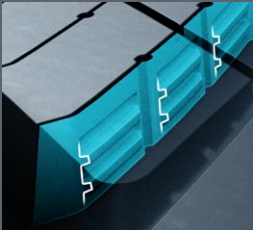
Round Even
1 patent

KR Application No. :
10-2021-0004477



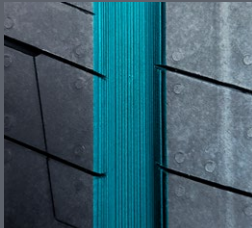
Grip Claw
8 patents

EP Application No. :
23157987.1 and 7 others



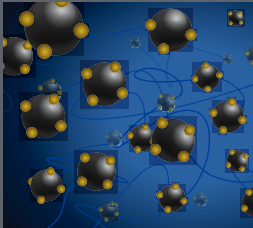
Noise Guard
Cornhusk
1 patent

KR Application No. :
10-2021-0079351



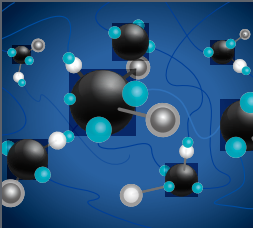
ProDurable
Compound
10 patents

EP Application No. :
18206108.5 and 9 others

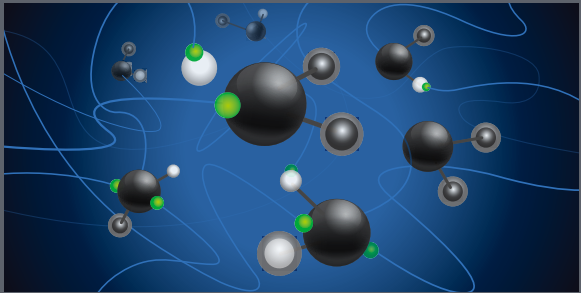


ProGrip
Compound
15 patents

EP Application No. :
19203083.1 and 14 others



ProCoupling Compound
15 patents



EP Application No. : 20185285.2 and 14 others

EV Noise Performance improved

i Sound Absorber



Profile & Structure Technology		Pattern Technology		Compound Technology
Quiet Flex	Noise Redux	Opti Pitch	Noise Guard	Silent Tread
Road noise absorbed with foam insulation	Reduced noise with optimally spaced aramid reinforcement belt	Dispersed noise by optimizing pattern arrangement	Dispersed noise by widening groove surface area	Reduced noise by optimizing tread compound hardness
- 6 dBA (road surface noise frequency band 180~250Hz)	- 0.5 dBA (road surface noise frequency band 250~500Hz)	Zigzag - 0.66 dBA Cornhusk - 1.2~1.7 dBA (pattern noise frequency band around 1000Hz)	- 1 dBA (road surface and pattern noise frequency wideband)	

* Based on internal experiments.
Results may vary depending on
actual environment.

ION offers a **QUIET AND PLEASANT RIDE** in all speed ranges.

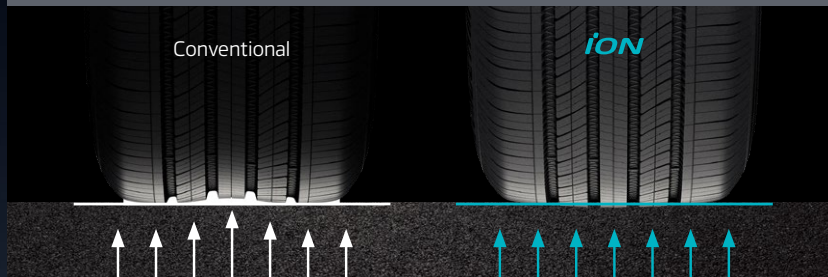
EV Battery Added Weight optimized

i Super Mileage



Profile & Structure Technology

Round Even

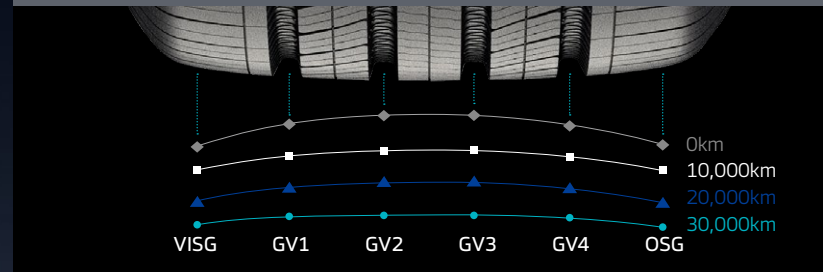


Achieved uniform contact pressure
by optimizing contact structure

20% higher
Mileage

Pattern Technology

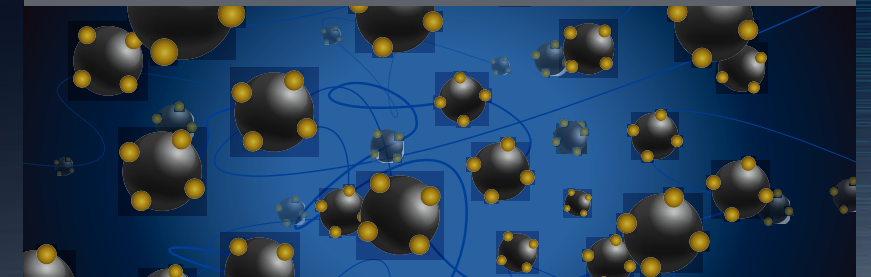
Opti Tread



Abnormal wear prevented
by optimizing individual pattern block
stiffness

Compound Technology

ProDurable Compound



Achieved higher mileage
by optimizing combination of
advanced fillers and flexible rubber
materials

max **49%** higher
Mileage

* Based on internal experiments.
Results may vary depending on
actual environment.

iON delivers **LONGER TREAD LIFE** for heavy electric vehicles.

EV High Instant Torque grip improved

i Perfect Grip



Profile & Structure Technology

Grip Boost

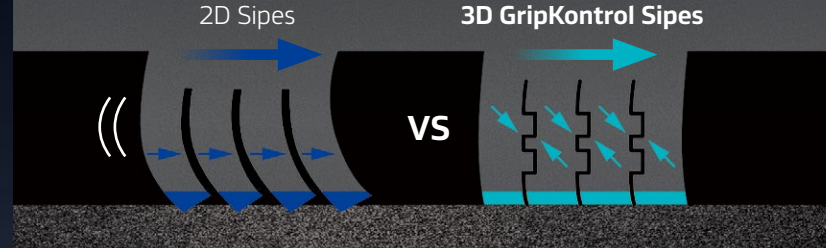


Achieved higher grip under heavier loads
by optimizing profile design

20% higher
Cornering Stiffness

Pattern Technology

Grip Claw

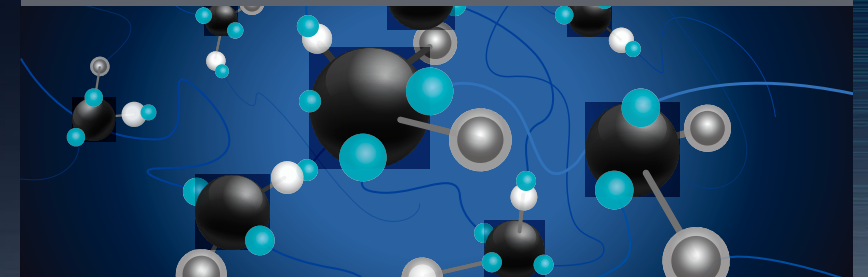


Prevented block distortion in direction of
travel by applying advanced 3D Kerfs

3% higher
Wet Grip
(wet grip 3% ↑ , dry grip 2% ↑)

Compound Technology

ProGrip Compound



Achieved higher wet surface grip by
combining high-density silica with
innovative eco-friendly materials

max **5%** higher
Wet Grip

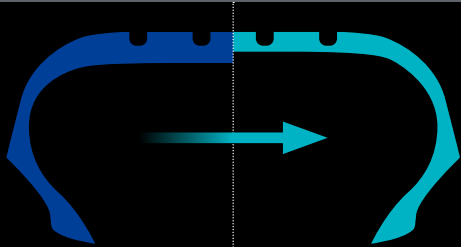

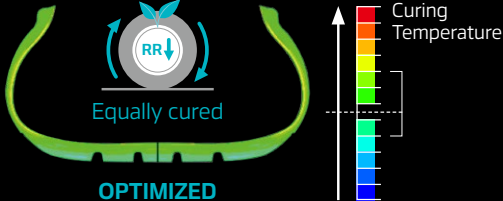
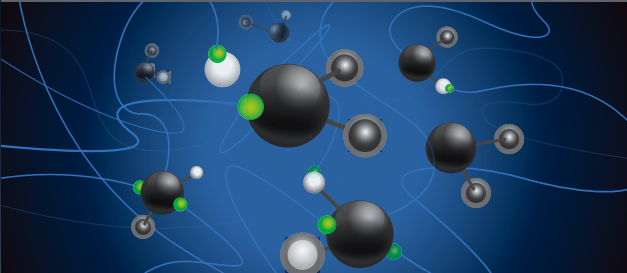
* Based on internal experiments.
Results may vary depending on
actual environment.

iON delivers EXCEPTIONAL GRIP AND HANDLING
even with EV heavier load and high torque.



Electric Energy Loss reduced

i Extreme Lightness

Profile & Structure Technology		Pattern Technology	Compound Technology	
Power Reserve		Cooling Tread	Opti Cure	ProCoupling Compound
				
Optimized tire gauge with advanced structure design		Optimized tread heat through extensive virtual testing	Achieved uniform curing by optimizing curing conditions	Improved fuel efficiency by optimizing compounds for higher silica dispersion
4% higher LRR perf. with 4% weight reduction		3% higher LRR performance		max 8% higher LRR performance

* Based on internal experiments.
Results may vary depending on
actual environment.

The iON delivers **LONGER TRAVEL ON A SINGLE CHARGE**
by reducing rolling resistance.



Hankook Tire & Technology