



**ION INNOVATIVE**<sup>TM</sup>  
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

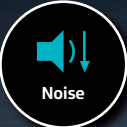



### Tailored Specifically for Electric Vehicles

*iON*  
EV Exclusive  
Tire



EV Feature basis

**iON INNOVATIVE™**  
TECHNOLOGY

-  max **18%** Noise Reduction
-  max **15%** Longer Tread Life
-  max **6%** increased Battery Range
-  max **10%** improved Driving Stability

\* 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**

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

## iON INNOVATIVE™ TECHNOLOGY

	<b>Low Noise</b> i <b>Sound Absorber</b>	<b>Longer Tread Life</b> i <b>Super Mileage</b>	<b>High Grip</b> i <b>Perfect Grip</b>	<b>Low Rolling Resistance</b> i <b>Extreme Lightness</b>
<b>Profile &amp; Structure Technology</b>	Noise Redux Quiet Flex	Round Even	Grip Boost	Power Reserve
<b>Pattern Technology</b>	Noise Guard Opti Pitch	Opti Tread	Grip Claw	Cooling Tread
<b>Compound Technology</b>	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

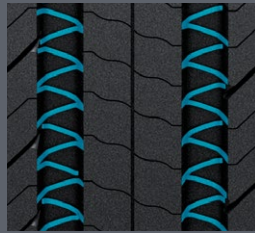
## **i** Sound Absorber

**9 patents**

### Noise Guard Zigzag

**8 patents**

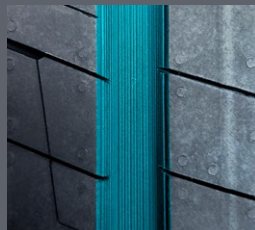
EP Application No. :  
20206989.4 and 7 others



### Noise Guard Cornhusk

**1 patent**

KR Application No. :  
10-2021-0079351



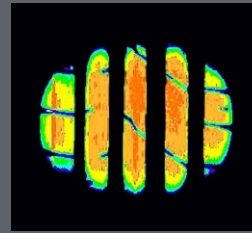
## **i** Super Mileage

**11 patents**

### Round Even

**1 patent**

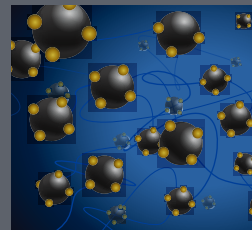
KR Application No. :  
10-2021-0004477



### ProDurable Compound

**10 patents**

EP Application No. :  
18206108.5 and 9 others



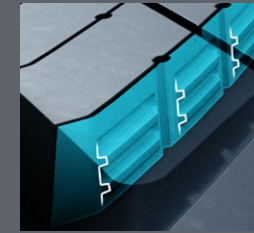
## **i** Perfect Grip

**23 patents**

### Grip Claw

**8 patents**

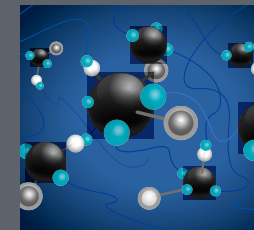
EP Application No. :  
23157987.1 and 7others



### ProGrip Compound

**15 patents**

EP Application No. :  
19203083.1 and 14 others

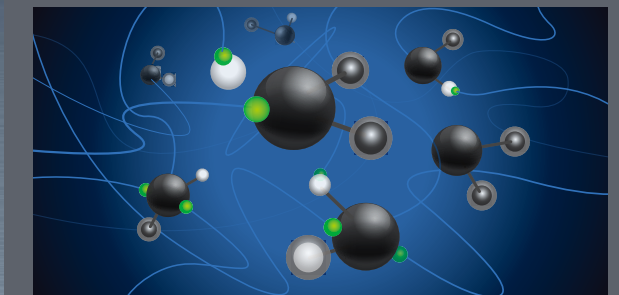


## **i** Extreme Lightness

**15 patents**

### ProCoupling Compound

**15 patents**


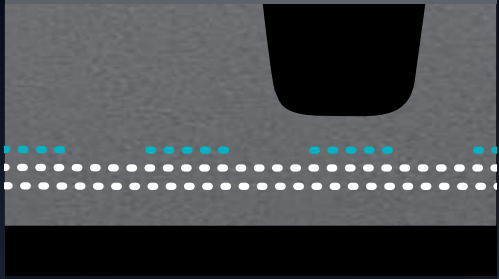


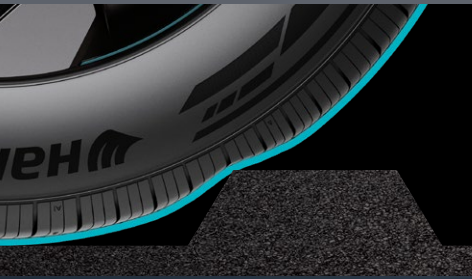


EP Application No. : 20185285.2 and 14 others

# EV Noise Performance improved

## i Sound Absorber



Profile & Structure Technology		Pattern Technology		Compound Technology
<b>Quiet Flex</b>	<b>Noise Redux</b>	<b>Opti Pitch</b>	<b>Noise Guard</b>	<b>Silent Tread</b>
				
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
<b>- 6 dBA</b> (road surface noise frequency band 180~250Hz)	<b>- 0.5 dBA</b> (road surface noise frequency band 250~500Hz)		Zigzag - <b>0.66 dBA</b> Cornhusk - <b>1.2~1.7 dBA</b> (pattern noise frequency band around 1000Hz)	<b>- 1 dBA</b> (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.

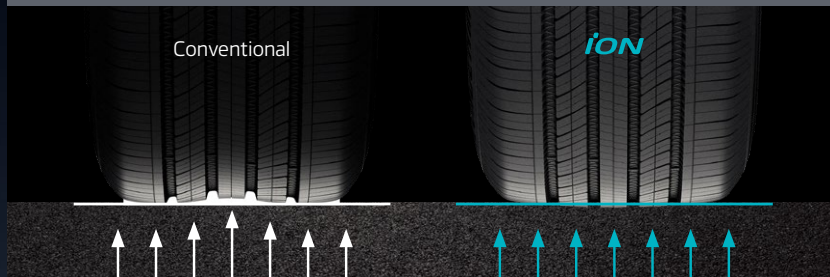
# EV Battery Added Weight optimized

## i Super Mileage



### Profile & Structure Technology

#### Round Even

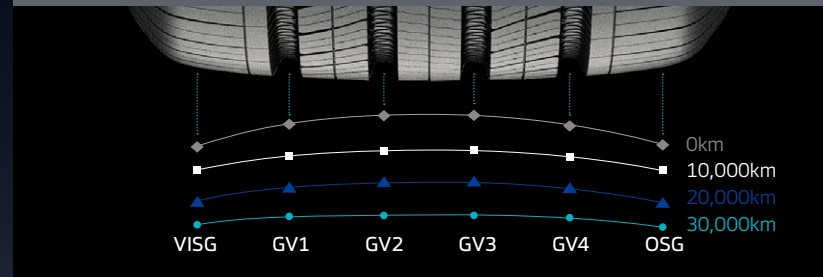


Achieved uniform contact pressure by optimizing contact structure

**20%** higher  
Mileage

### Pattern Technology

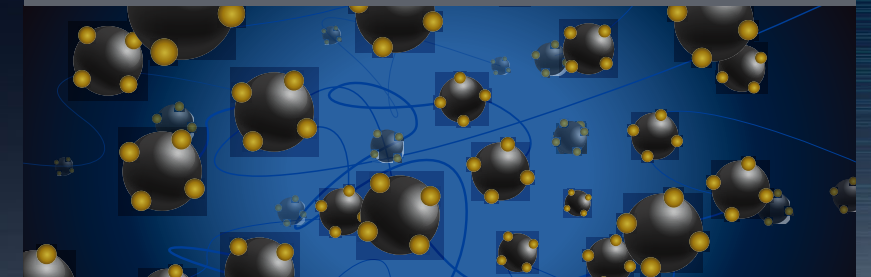
#### Opti Tread



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

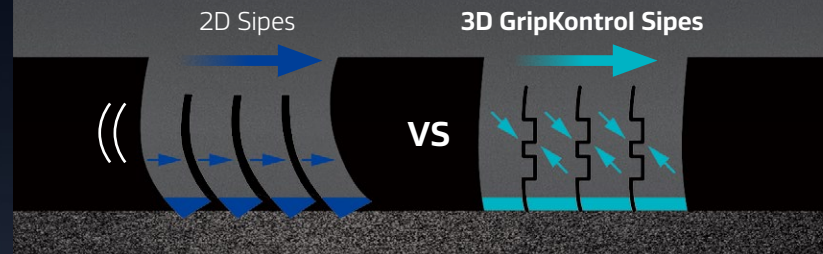


Achieved higher grip under heavier loads by optimizing profile design

**20%** higher  
Cornering Stiffness

### Pattern Technology

#### Grip Claw

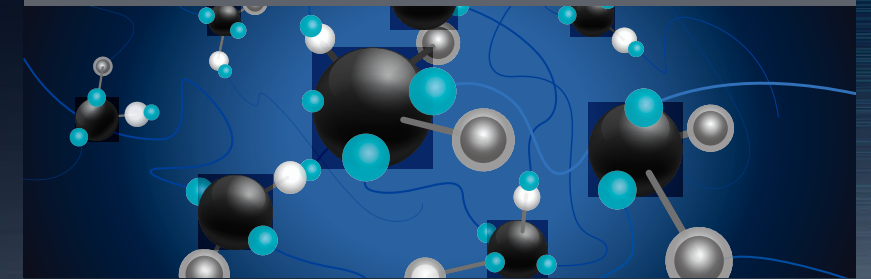


Prevented block distortion in direction of travel by applying advanced 3D Kerfs

**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.

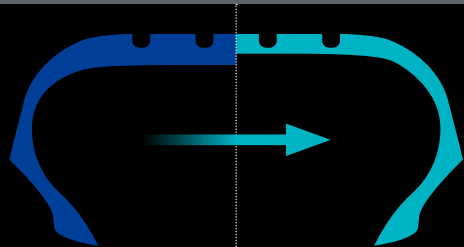


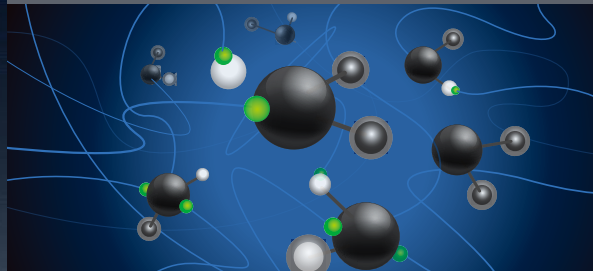
**ION delivers EXCEPTIONAL GRIP AND HANDLING even with EV heavier load and high torque.**



# Electric Energy Loss reduced

## i Extreme Lightness



Profile & Structure Technology	Pattern Technology	Compound Technology	
<b>Power Reserve</b>	<b>Cooling Tread</b>	<b>Opti Cure</b>	<b>ProCoupling Compound</b>
			
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
<b>4%</b> higher LRR perf. with <b>4%</b> weight reduction	<b>3%</b> higher LRR performance		max <b>8%</b> 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