

# Winter tyres 2011

**NOKIAN  
TYRES**



Trust the Natives.

# Nokian Tyres. In a class of its own wherever winter bites.

Nokian Tyres has over 75 years of experience in the manufacturing of tyres for extreme conditions. We have invented the first winter tyre in the world already in 1934.

Mastery of northern conditions can be both seen and felt in every Nokian winter tyre. You can confidently enjoy the performance and driving properties of your car throughout the winter.

## World's northernmost proving ground.

Extreme situations in winter driving are simulated from November to May on Nokian Tyres' 700 hectare proving ground in Ivalo. Along with the testing equipment and gauges, the experiences of practiced test drivers figure considerably in the results.

## On the frontline of safety and environmental issues.

Nokian Tyres was the world's first tyre manufacturer to introduce a manufacturing method using only purified, low-aromatic oils. In order to improve grip in icy and wet conditions, a renewable raw material, canola oil, is used in the tread mixture.



”Hakkaa päälle!”



## New world speed record for ice driving: 331.61 km/h

The new world record for fastest car on ice was set by Nokian Tyres' test driver Janne Laitinen who drove 331,61 km/h (206,05 mph) on the sea ice of the Gulf of Bothnia at a point close to the city of Oulu, Finland. The record drive took place on March 6th on a snow-cleared 14-kilometre ice track in freezing conditions. The car used by the world's leading manufacturer of winter tyres was equipped with Nokian Hakkapeliitta 7 studded tyres (255/35R20 97 T XL).



# Winter is not overcome by fantasy but by ideas tested in practice.

For over 75 years we have developed, tested and patented solutions that enhance safety in driving. Continuous innovation work is harnessed to improving safety, durability and environmental friendliness. The guiding principle is sustainable safety: the tyre should retain its features intact under all conditions, even as it ages and wears.



## Pump siping

The patented siping improves tyre grip on wet ice. The pocket-like sipes on the tyre's tread blocks remove water from the road surface and provide firmer contact.

Nokian Hakkapeliitta R  
Nokian Hakkapeliitta R SUV



## Silent Sidewall Technology

The special zone on the tyre sidewall helps to filter the noise and vibration from the road surface, reducing noise inside the vehicle.

Nokian WR A3, Nokian WR D3



## Polished grooves

Snow, slush and water flow efficiently off the polished grooves under the tyre.

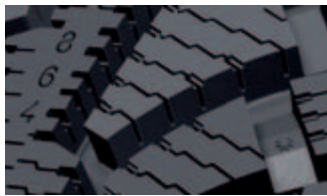
Nokian WR A3, Nokian WR G2 SUV



## Silent Groove Design

The round cavities on the sides of the longitudinal ribs, resembling a golf ball pattern, cool the tyre, reduce drag and ensure a pleasant driving noise.

Nokian WR A3



## Driving safety indicator (DSI)

The row of numbers on the tread makes it easy to check the extent of the remaining tread in millimetres.



## Mud stopper

The mud stopper prevents sand and mud from getting caught between the rim and the tyre and extends the service life of the tyre and rim.



## Naturally Nokian Tyres

Nokian Tyres was the world's first tyre manufacturer to go over to using purified, low aromatic oils throughout its production.



## Low rolling resistance

The more easily a tyre rolls, the less fuel it consumes and the fewer CO<sub>2</sub> emissions it generates. A 40% difference in rolling resistance transforms into an approximately 6% difference in fuel consumption, which is immediately felt in your purse.



# Take care of your Nokian tyres.

Nokian tyres are designed to endure the changing northern conditions. With these few tips, you can keep your tyres in top shape so that they can ensure a safe drive for you.

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## Do tyres need to be run in?

We recommend tyres to be run in for 500 km after their mounting. Therefore, avoid strong acceleration, braking and turning at first. During the running-in, the tyre grease that is used between the tyre and the rim in the mounting dries, which makes the tyre remain tightly in place in relation to the rim. Remember to after-tighten the nuts/bolts after driving ca. 200 km.

## What are the recommended inflation pressures?

Nokian Tyres has test driven the recommended inflation pressures for winter tyres (M+S) for the most common car makes. The recommended pressures may exceed the car manufacturer recommendations, as the winter tyre has a different structure. If there is no recommended inflation pressure for winter tyres, we recommend winter tyres to be inflated 0.2 bar (20 kpa) higher than the summer recommendation. The pressure levels must be inspected by using a calibrated gauge with cold tyres every three (3) weeks.

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## Should tyres be rotated from the front to back?

Drive tyres wear more quickly than free-rolling tyres.

We recommend tyres to be rotated from the front axle to the rear axle ca. every 8,000 km. This way, the tyre wear is evened out and the total driving distance of the tyres is maximised. The rotation direction that is marked on the tyre must be followed.

## What is the life of the tyres?

The safe service life for tyres is six (6) years. The maximum life is ten (10) years. The safe minimum tread depth for winter tyres is 4 mm. We do not recommend winter tyres (M+S) to be used under summer conditions.

Between seasons, the tyres must be stored in a cool, dark and dry space. The tyres must not touch solvent substances such as oil, gasoline or lubricants.

## What if the tyre is damaged?

If a tyre is damaged, avoid driving on an under-inflated tyre. Take the tyre to a tyre dealer for assessment and repair.

# Nokian winter tyres

## **nokian** HAKKAPELIITTA R



### **NOKIAN HAKKAPELIITTA R** - safety designed for extreme conditions.

Grip, not only in snow and ice but also in mild and wet weather, was the focus in the design of this friction tyre designed and tested in the changeable weather and driving conditions of the North. A tyre with numerous innovations to enhance safety in driving was developed. The pocket-like sipes on the tyre's tread blocks remove water from an icy road surface and significantly improve grip. Low rolling resistance reduces fuel consumption by as much as 0.5 l/100 km\*.

- Superior grip even on wet ice
- Extremely low rolling resistance
- Safe on wet roads as well

\*A petrol-fuelled car with ECE consumption of 8.5 l/100 km was used in the comparison. Tyre size 205/55 R 16, which was compared with another European winter tyre.

## **nokian** HAKKAPELIITTA R SUV



### **NOKIAN HAKKAPELIITTA R SUV** - reliable grip for SUVs.

The tyre designed to complement SUV driving properties provides a sturdy and steady driving response. The pocket-like sipes on the tyre's tread blocks remove water from an icy road surface and significantly improve grip. The precise steering response improves handling of a 4-wheel drive vehicle on a wet road as well. Low rolling resistance reduces fuel costs and CO<sub>2</sub> emissions.

- Steady driving
- Excellent grip on snow and bare roads
- Extremely low rolling resistance

## **nokian** WR D3



### **NOKIAN WR D3** - forget the forecasts.

Nokian WR D3, designed for the variable winter conditions of Central Europe, is a sound choice for small and mid-sized family cars and for motorists who value economical and safe driving. Preventing slush planing was a key consideration in the design process: the slanting, staggered front edge of the tread blocks flings water and slush away from the tyre grooves. The tyre's Cool Touch Design siping minimises the friction and heat emission caused by unnecessary sipe movement. A lighter rolling tyre means lower fuel consumption and lower carbon dioxide emissions.

- Reliable grip on all surfaces, whether dry, wet or snowy
- Effective slush and aquaplaning prevention
- Rolls lightly, saving the environment and fuel

## **nokian** WR A3



### **NOKIAN WR A3** - forget the forecasts.

Nokian WR A3, optimised for more efficient cars, also guarantees precise and sensitive driving at higher speeds. The Nanobase structure of Nokian WR A3 improves the tyre's steering response and control when cornering, changing lanes and dodging. Controllability in extreme conditions is exemplary on both slippery surfaces and roads offering a firm grip. The new structure also helps to reduce the tyre's harmful heat emission, which in turn means a lower rolling resistance.

- Extremely good grip and handling in all winter conditions
- Stable and easy to control even at higher speeds
- Rolls lightly, saving the environment and fuel



**nokian**  
W+

### **NOKIAN W+ - winter grip in various conditions.**

Nokian W+ is a safe friction tyre excellently suited for Central European winter conditions. The advanced Haka-siping technology improves winter grip. The new silica tread compound guarantees low rolling resistance. Tread pattern with W-traction concept lowers the noise level.

- Good stability
- Low rolling resistance
- Comfortable in all conditions



**nokian**  
WR G2 SUV

### **NOKIAN WR G2 SUV - comfort and safety combined.**

The slush edge and polished tyre grooves of the SUV tyre suitable for the winters of Central Europe efficiently remove slush and water from under the tyre. The asymmetrical inside-outside tread design guarantees driving enjoyment on wet, snowy and dry roads. The improved rubber compound reduces rolling resistance and saves fuel.

- Excellent grip on wet roads
- Steady driving
- Efficiently prevents slush planing



**nokian**  
WR C

### **NOKIAN WR C - when keeping to schedule is a must.**


The Nokian WR C tyre family provides excellent winter grip and durability for professional transport. The tyre's numerous features are designed with demanding, unforeseeable conditions and tough use in mind.

Nokian WR C Cargo for goods vehicles is exceptionally durable and its wear pattern even.

- Symmetrical, arrow-shaped tread pattern guarantees good grip
- Snow and ice clean off easily

Nokian WR C Van's inside-outside tread is customised for lighter vans. The tyre performs exceptionally well in slush and snow.

- Asymmetrical tread pattern reduces risk of aquaplaning and enhances comfort
- Excellent wet grip



## **The greater the vehicle mass the more surface grip is required.**

Nokian Tyres offers the market's widest and most comprehensive range of winter tyres especially designed for SUVs. Greater engine power, higher centre of gravity and the weight of SUVs mean that winter tyres must have properties that tyres designed for year-round driving are not up to. Properties that cannot be replaced by a 4-wheel drive or electronic stability control systems when winter shows its teeth.

### **Nokian Tyres' SUV series features**

- Tyre carcass construction tailored for higher weight classes
- Greater load-bearing capacity
- Cut resistant sidewall compound
- Special tread compound, which ensures good driving stability
- Stabilising zones on the tread
- Good running capacity, even in deep snow

»» **Nokian Hakkapeliitta R**

155/70 R 13 75 R XL  
 175/70 R 13 82 R  
 175/70 R 14 88 R XL  
 185/70 R 14 92 R XL  
 155/65 R 14 75 R  
 175/65 R 14 86 R XL  
 185/65 R 14 90 R XL  
 205/70 R 15 100 R XL  
 175/65 R 15 88 R XL  
 185/65 R 15 92 R XL  
 195/65 R 15 95 R XL  
 205/65 R 15 99 R XL  
 185/60 R 15 88 R XL  
 195/60 R 15 92 R XL  
 185/55 R 15 86 R XL  
 195/55 R 15 89 R XL  
 215/65 R 16 102 R XL  
 195/60 R 16 93 R XL  
 205/60 R 16 92 R Flat Run  
 205/60 R 16 96 R XL  
 215/60 R 16 99 R XL  
 225/60 R 16 102 R XL  
 235/60 R 16 104 R XL  
 195/55 R 16 91 R XL  
 195/55 R 16 87 R Run Flat  
 205/55 R 16 91 R Run Flat  
 205/55 R 16 94 R XL  
 215/55 R 16 97 R XL  
 225/55 R 16 99 R XL  
 195/50 R 16 88 R XL  
 215/55 R 17 98 R XL  
 225/55 R 17 97 R Flat Run  
 225/55 R 17 101 R XL  
 235/55 R 17 103 R XL  
 205/50 R 17 89 R Run Flat  
 205/50 R 17 93 R XL  
 215/50 R 17 95 R XL  
 225/50 R 17 98 R XL  
 225/50 R 17 94 R Run Flat  
 215/45 R 17 91 R XL  
 225/45 R 17 94 R XL  
 225/45 R 17 91 R Run Flat  
 235/45 R 17 97 R XL  
 245/45 R 17 99 R XL  
 235/50 R 18 101 R XL  
 245/50 R 18 100 R Run Flat  
 245/50 R 18 104 R XL  
 225/45 R 18 95 R XL  
 245/45 R 18 100 R XL  
 245/45 R 18 100 R XL Flat Run  
 255/45 R 18 103 R XL  
 225/40 R 18 92 R XL  
 235/40 R 18 95 R XL  
 245/40 R 18 97 R XL  
 245/45 R 19 102 R XL  
 245/40 R 19 98 R XL  
 255/40 R 19 100 R XL  
 235/35 R 19 91 R XL  
 255/35 R 20 97 R XL

»» **Nokian Hakkapeliitta R SUV**

235/75 R 15 105 R  
 215/70 R 16 100 R  
 225/70 R 16 107 R XL  
 235/70 R 16 106 R  
 245/70 R 16 111 R XL  
 265/70 R 16 112 R  
 275/70 R 16 114 R  
 265/70 R 17 115 R  
 225/65 R 17 106 R XL  
 235/65 R 17 108 R XL  
 245/65 R 17 111 R XL  
 255/65 R 17 114 R XL  
 265/65 R 17 116 R XL  
 275/65 R 17 119 R XL  
 285/65 R 17 116 R  
 215/60 R 17 100 R XL  
 225/60 R 17 103 R XL  
 225/60 R 17 99 R Flat Run  
 235/60 R 17 106 R XL  
 235/65 R 18 110 R XL  
 225/60 R 18 104 R XL  
 235/60 R 18 107 R XL  
 245/60 R 18 109 R XL  
 255/60 R 18 112 R XL  
 265/60 R 18 114 R XL  
 275/60 R 18 113 R XL  
 285/60 R 18 116 R  
 225/55 R 18 102 R XL  
 235/55 R 18 104 R XL  
 255/55 R 18 109 R XL  
 235/55 R 19 105 R XL  
 255/55 R 19 111 R XL  
 275/55 R 19 115 R XL  
 255/50 R 19 107 R XL  
 255/50 R 19 107 R XL Run Flat  
 245/50 R 20 106 R XL  
 265/50 R 20 111 R XL  
 275/50 R 20 113 R XL  
 285/50 R 20 116 R XL  
 275/45 R 20 110 R XL  
 275/40 R 20 106 R XL  
 265/45 R 21 108 R XL

»» **Nokian WR D3**

175/70 R 13 82 T  
 155/65 R 14 75 T  
 175/65 R 14 82 T  
 185/65 R 14 90 H XL  
 185/65 R 14 90 T XL  
 205/70 R 15 100 H XL  
 175/65 R 15 84 T  
 185/65 R 15 92 T XL  
 185/65 R 15 92 H XL  
 195/65 R 15 91 T  
 195/65 R 15 95 T XL  
 195/65 R 15 95 H XL  
 205/65 R 15 99 H XL  
 215/65 R 15 100 H XL  
 185/60 R 15 88 T XL  
 195/60 R 15 92 H XL  
 205/60 R 15 95 H XL  
 185/55 R 15 86 H XL  
 195/55 R 15 89 H XL  
 215/65 R 16 102 H XL  
 195/60 R 16 89 H  
 205/60 R 16 92 H  
 205/60 R 16 96 H XL  
 215/60 R 16 99 H XL  
 195/55 R 16 87 H Flat Run  
 195/55 R 16 91 H XL  
 205/55 R 16 91 H  
 225/45 R 17 94 H XL

»» **Nokian WR A3**

195/50 R 15 86 H XL  
 225/60 R 16 98 H  
 225/60 R 16 102 V XL  
 235/60 R 16 104 H XL  
 205/55 R 16 91 H  
 205/55 R 16 91 V Flat Run  
 205/55 R 16 94 H XL  
 205/55 R 16 94 V XL  
 215/55 R 16 97 H XL  
 215/55 R 16 97 V XL  
 225/55 R 16 99 V XL  
 225/55 R 16 99 H XL  
 205/50 R 16 91 H XL  
 215/55 R 17 98 V XL  
 225/55 R 17 101 V XL  
 235/55 R 17 103 V XL  
 205/50 R 17 89 V Flat Run  
 205/50 R 17 93 V XL  
 215/50 R 17 95 V XL  
 225/50 R 17 94 V Flat Run  
 225/50 R 17 98 V XL  
 215/45 R 17 91 V XL  
 225/45 R 17 91 V Flat Run  
 225/45 R 17 94 H XL  
 225/45 R 17 94 V XL  
 235/45 R 17 97 H XL  
 235/45 R 17 97 V XL  
 245/45 R 17 99 V XL  
 235/50 R 18 101 V XL  
 245/50 R 18 100 V Flat Run  
 245/50 R 18 104 V XL  
 225/45 R 18 95 V XL  
 245/45 R 18 100 V XL  
 225/40 R 18 92 V XL  
 235/40 R 18 95 V XL  
 245/40 R 18 97 V XL  
 255/40 R 19 100 V XL  
 235/35 R 19 91 V XL  
 255/35 R 20 97 W XL

»» **Nokian W+**

155/70 R 13 75 T  
 165/70 R 13 79 T  
 175/70 R 13 82 T  
 165/70 R 14 81 T  
 175/70 R 14 84 T  
 185/70 R 14 88 T  
 175/65 R 14 82 T  
 185/65 R 14 86 T  
 185/60 R 14 82 T  
 185/65 R 15 88 T  
 195/65 R 15 91 T  
 205/65 R 15 94 T  
 195/60 R 15 88 T  
 205/60 R 15 91 H  
 205/55 R 16 91 T  
 215/55 R 16 93 T  
 225/55 R 16 95 H  
 225/45 R 17 91 H

»» **Nokian WR G2 SUV**

235/75 R 15 105 T  
 215/70 R 16 100 H  
 225/70 R 16 107 H XL  
 235/70 R 16 106 H  
 245/70 R 16 111 H XL  
 265/70 R 16 112 H  
 215/65 R 16 102 H XL  
 255/65 R 16 109 H  
 265/70 R 17 115 H  
 225/65 R 17 106 H XL  
 235/65 R 17 108 V XL  
 245/65 R 17 111 H XL  
 255/65 R 17 114 H XL  
 265/65 R 17 116 H XL  
 215/60 R 17 100 V XL  
 225/60 R 17 103 V XL  
 235/60 R 17 106 V XL  
 235/60 R 18 107 V XL  
 255/60 R 18 112 H XL  
 265/60 R 18 114 H XL  
 225/55 R 18 102 H XL  
 235/55 R 18 104 H XL  
 255/55 R 18 109 V XL  
 255/55 R 19 111 V XL  
 255/50 R 19 107 V XL  
 255/50 R 19 107 V XL Run Flat  
 275/40 R 20 106 V XL  
 265/45 R 21 108 V XL  
 295/30 R 22 103 V XL

»» **Nokian WR C Van**

175/65 R 14 C 90/88 T  
 185 R 14 C 102/100 S  
 195/70 R 15 C 104/102 S  
 205/70 R 15 C 106/104 S  
 205/65 R 15 C 102/100 T  
 195/65 R 16 C 104/102 S  
 205/65 R 16 C 107/105 T  
 215/65 R 16 C 109/107 T  
 215/60 R 17 C 109/107 T

»» **Nokian WR C Cargo**

225/70 R 15 C 112/110 (115N) S  
 195/75 R 16 C 107/105 S  
 205/75 R 16 C 113/111 S  
 215/75 R 16 C 116/114 S  
 225/75 R 16 C 121/120 R  
 225/65 R 16 C 112/110 T  
 235/65 R 16 C 121/119 R

We reserve the right to changes.

