

The world's first winter tyre with class A wet grip

The new Nokian WR D4 winter tyre masters the varying Central European winter weather



The latest product from the pioneer in winter tyre technology, the Nokian WR D4, is a versatile chameleon for the winter roads. It is a grip champion whose unique innovations allow for safe and balanced driving on wet and snowy roads alike. This supreme ruler of every type of winter weather is the world's first premium winter tyre for passenger cars that offers wet grip in the EU tyre label's best A class. Focused innovations from the developer of the winter tyre: The Nokian Block Optimized Siping and the Nokian Twin Trac Silica offer controlled handling and firm grip for extreme conditions.

The extensive size selection of the Nokian WR D4 covers sizes from 14 to 20 inches, with speed ratings from Q (160 km/h) to W (270 km/h). The versatile selection offers exact sizes for sporty rides as well as modern electric vehicles. The special products in the selection employ Flat Run technology, and many products are marked XL for the highest possible load capacity in a passenger car tyre.

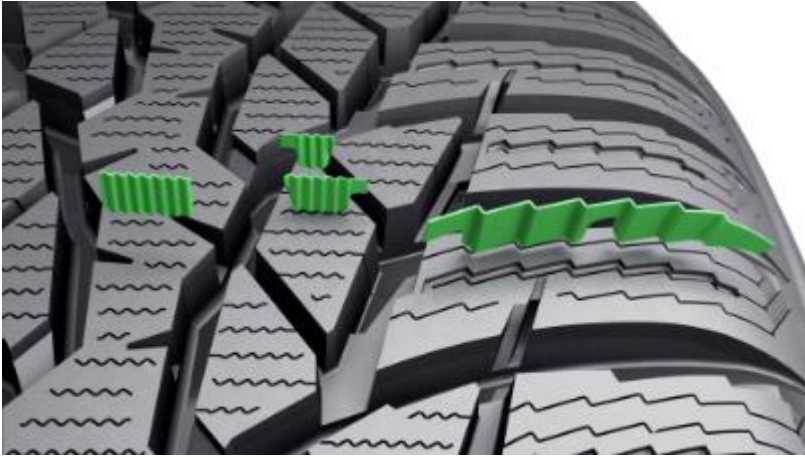
The comprehensive range of winter champions especially designed for Central Europe will be totally available to consumers in the autumn of 2015.

Tested precision and peace of mind

Nowadays, winter weather in Central Europe tends to vary between blizzards, driving rain and dry periods. The Nokian WR D4 is created for varying weather, and it represents the finest in Nokian Tyres' tailoring expertise: it is an eco-friendly quality tyre that masters the changing conditions. This uncompromising winter tyre represents the new generation that follows the Nokian WR D3, the winner of multiple comparison tests in motoring magazines.

The precise and safe Nokian WR D4 is a tailor-made product whose structures and rubber compounds were fine-tuned in the laboratories and authentic tests of the world's leading manufacturer of winter tyres. The unique slushplaning test method available on Nokia test track allowed to optimise the slush properties of the tyre. The extensive research was supplemented by relentless testing in the arctic conditions of Nokian Tyres' own Testing Center in Ivalo, Lapland. In addition to the kingdom of ice and snow, the new product's vastly improved wet and dry road characteristics were also fine-tuned on several Central European test tracks.

Safety like never before, also on wet roads



The arrow-like Nokian WR D4 is a genuine winter tyre that steers in a balanced manner and grips absolutely firmly in real winter weather, that is, when driving in snow and slush. Years of work by Nokian Tyres and thousands of kilometres of winter testing all tell the same story: a directional tread pattern is the ideal choice for varying winter conditions.

- A high-quality winter tyre can sense and master all the elements of winter. The excellent grip and handling properties of the Nokian WR D4 are the result of the high-technology functional tread pattern combined with an entirely new **Nokian Twin Trac Silica** rubber compound and the **Nokian Block Optimized Siping**. Each tread block and sipe has a specific role. We can now offer drivers the ultimate safety accessory that works reliably and predictably on wet roads, snow and ice alike, says Product Development Manager **Olli Seppälä** from Nokian Tyres.

The unique nature of the high-performance Nokian WR D4 is also indicated by the EU tyre label, which is designed to make comparing tyres easier for consumers. For the first time, a real winter tyre can also successfully tackle the challenges of wet roads: slush and water. In a few sizes, the Nokian WR D4 can reach the top of the EU tyre label: class A. For the driver, this means a difference in braking distance of over 18 metres, or in other words four car lengths (difference between classes A and F).

First-class snow grip and handling – Nokian Block Optimized Siping



Winter grip in slippery weather and the precise driving feel are maximised by the new tread compound and the **Nokian Block Optimized Siping** used in the stylish tread pattern.

The centre area is dominated by the **Steering Precision Rib** that can be felt in the excellent steering response on bare roads. The sipes of the massive centre rib do not run across its entire width, which improves precision and promotes controlled handling.

- The small, heavily siped tread blocks on both sides of the centre rib are siped so that every other sipe is

attached on the left and every other on the right. The **Snow Performance Blocks** that are split into groups of three and improve grip on snow are also supported by raising the bottom of the groove; this improves the rigidity of the computer-optimised tread pattern and results in better handling, Seppälä explains.

The **Stiff Handling Blocks** have heavy sipes to improve traction; they become shallower when moving towards the shoulder from the centre. This design improves grip on snow as well as the driving feel required for cornering and lane changes. An aggressive activator sipe that is used to boost the operation of the shoulder block during acceleration and braking, when grip is needed the most, is located in the middle of the shoulder blocks.

Versatile added safety – Slush Blower and Deep Snow Booster

According to research, slush is even more dangerous for a driver than ice or aquaplaning. The combination of melting snow, the water cushion at the road surface and potential ice makes the situation difficult even for an expert driver. The new Nokian WR D4 actively fights aquaplaning and slushplaning with the **Slush Blower** innovation. The polished grooves also facilitate the removal of water and slush

The **Deep Snow Booster** design ensures grip during heavy cornering and while driving in deep snow. The jagged chamfers on the sides of the shoulder blocks grip the surface in a controlled manner, enabling additional grip.

Nokian Twin Trac Silica rubber compound ensures exemplary grip



The tread compound of the new product uniquely combines the Nokian Hakkapeliitta rubber compound designed for the demanding and cold Northern winter and a silica-based compound that provides excellent performance in milder weather. The end result is the Nokian Twin Trac Silica rubber compound, which contains natural rubber, silica and canola oil; its unique particle distribution ensures peak performance for snow and wet grip.

This state-of-the-art compound innovation also improves driving stability and wear resistance. The large amounts of natural rubber and canola oil in the entirely new rubber compound ensure that the excellent winter grip properties remain the same even as temperatures change and the kilometres add up. The canola oil added to the compound allows the silica and natural rubber to work together, improving the ice grip and tear strength of the tread compound. Tear strength makes the tyre extremely resistant to wear, impacts and punctures.

Together with the siping innovations, the winter-tuned rubber compound ensures that the Nokian WR D4 has sufficient grip reserve even under the most demanding winter conditions, that is, when driving on wet ice. Tests indicate that the lateral and longitudinal ice grip of the Nokian WR D4 is supreme.

Due to the lightly rolling tread pattern and the higher amount of silica in the compound, the Nokian WR D4 has extremely low rolling resistance, allowing it to achieve lower fuel consumption and emissions than its more traditional competitors.

Light and comfortable driving

In addition to safety, driving comfort is also an essential part of a positive driving experience. The precisely optimised tread structure allows the Nokian WR D4 to react quickly to steering, while it maintains calm and silent road contact.

Nokian Silent Sidewall Technology improves driving comfort. The tailored special rubber compound between the sidewall and tread actively filters the sound and vibration originating from the driving surface, preventing the passage of harmful sound waves through the sidewall into the rim and further into the passenger compartment. This innovation reduces the noise level inside the vehicle. The new and more flexible steel belt structure also improves light rolling and driving comfort.

Winter Safety Indicator increases safety and driving comfort

Good tyres are a prerequisite for smooth winter driving. The tread has the **Driving Safety Indicator (DSI)**, developed and patented by Nokian Tyres, which improves winter safety; it also comes with the snowflake symbol of the **Winter Safety Indicator (WSI)**. The numbers on the centre surface of the tyre indicate the depth of the main grooves in millimetres. The numbers wear out as the tyre wears down. The snowflake symbol remains visible to a groove depth of four millimetres. Once the snowflake has worn out, the driver should purchase new winter tyres to ensure sufficient safety.

The additional fields on the sidewall information area improve safety and comfort. During a tyre change, the information area can be used to record the correct inflation pressures, the usage location as well as the tightening torque of the wheel nuts. Correct tyre pressure makes the car's steering more precise, reduces tyre damage and saves on fuel costs.

The test-winning Nokian WR SUV 3 for SUVs and the Nokian WR A3 for high-performance vehicles will continue to complement Nokian Tyres' premium winter tyre range that is designed to promote trouble-free winter safety. The new Nokian Weatherproof winter tyre reliably manages all seasons, and it is designed for year-round use.

New Nokian WR D4 – Forget the Forecast

- Grip like never before on wet, dry and snow-covered roads alike

- Extremely stable and balanced driving experience
- Effective slushplaning and aquaplaning prevention
- Rolls lightly, saving the environment and fuel

Main innovations:

Nokian Block Optimized Siping. More winter grip, better steering feel. Each tread block and sipe in the stylish tread pattern has a precise shape and role, and this can be felt in the excellent grip and handling properties.

Steering Precision Rib. Controlled handling. The centre area is dominated by a strong and massive centre rib. The sipes of the sturdy centre rib do not run across its entire width, which improves precision and promotes controlled handling.

Snow Performance Blocks. Maximum grip on snow. The small, heavily siped tread blocks on both sides of the centre rib are siped so that every other sipe is attached on the left and every other on the right. The tread blocks are split into groups of three and have Handling Supports on the bottoms of the grooves in order to improve handling.

Stiff Handling Blocks. More grip and driving feel. The Stiff Handling Blocks have heavy sipes to improve traction; they become shallower when moving towards the shoulder from the centre. This design improves grip on snow as well as the driving feel. An aggressive activator sipe that is used to boost the operation of the shoulder block during acceleration and braking, when grip is needed the most, is located in the middle of the shoulder blocks.

Nokian Twin Trac Silica rubber compound. Precise grip, excellent wear resistance, low fuel consumption. The unique particle distribution of the Nokian Twin Trac Silica rubber compound, which contains natural rubber, silica and canola oil, ensures peak performance for snow and wet grip. This state-of-the-art compound innovation also improves driving stability and wear resistance. The large amounts of natural rubber and canola oil ensure that the excellent winter grip properties remain the same even as temperatures change and the kilometres add up. Extremely low rolling resistance results in low fuel consumption.

Handling Supports. Balanced handling. The small interim tread blocks that improve snow grip are supported by raising the bottoms of the grooves.

Deep Snow Booster. Grip for extreme conditions. The jagged chamfers on the sides of the shoulder blocks grip the surface in a controlled manner, enabling additional grip while cornering and driving in deep snow.

Slush Blower. Effectively prevents aquaplaning and slushplaning. The slanted grading on the back edge of the tread block shoots the water and slush out of the grooves.

Silent Sidewall Technology. More driving comfort. The tailored special rubber compound between the sidewall and tread actively filters the sound and vibration originating from the driving surface, preventing the passage of harmful sound waves through the sidewall into the passenger compartment.

Polished Grooves. Safety on slushy and wet roads. Polished grooves facilitate the removal of snow and slush.

www.nokiantyres.com

Vianor tyre and car-service of Nokian Tyres:

<http://vianor.com>

Edited by: Dr Falk Köhler

Captions:

New Nokian WR D4 is a grip champion whose unique innovations allow for safe and balanced driving on wet and snowy roads alike.

Nokian Block Optimized Siping. Each tread block and sipe in the stylish tread pattern has a precise shape and role, and this can be felt in the excellent grip and handling properties.

Snow Performance Blocks. Maximum grip on snow. The small, heavily siped tread blocks on both sides of the centre rib are siped so that every other sipe is attached on the left and every other on the right. The tread blocks are split into groups of three.

Product photos:

www.nokiantyres.com/NokianWRD4

View video:

<http://youtu.be/PwIGMzpEJMM>

Read more:

Nokian Tyres - The world's first winter tyre with an A energy rating

<http://youtu.be/Wo4omb0Eil4>

World's first winter tyre with pop-out studs

www.nokiantyres.com/company/news-article/nokian-tyres-the-world-s-first-nonstudded-winter-tyre-with-studs/

Winter season 2014: Over 40 test wins for Nokian winter tyres

www.nokiantyres.com/innovation/test-success/



At the top of winter tyre testing: Ivalo Testing Center – White Hell

<http://youtu.be/UEGUTw7KHxE>

Nokian Hakkapeliitta 8: World record for the fastest car on ice, 335.713 km/h:

www.nokiantyres.com/innovation/testing/fastest-on-ice/fastest-on-ice-2013/

How was the world's first winter tyre invented?

<http://www.nokiantyres.com/first-winter-tyres>

Comparing the world's first winter tyre to the state-of-the-art non-studded winter tyre

www.nokiantyres.com/company/about-us/history/this-is-how-the-winter-tyre-has-changed/

Nokian Tyres is the world's leading winter tyre specialist, a multiple test winner, the inventor of the winter tyre and a premium brand

As the world's leading winter tyre specialist, a multiple test winner, and a premium brand, Nokian Tyres offers the safest tyres for Northern conditions. Innovative Nokian tyres from Finland for cars, trucks, and heavy machinery demonstrate their high quality particularly well in snow, ice, tough climates, and demanding driving situations. Nokian is the inventor of the winter tyre and has been designing, testing, and patenting innovative tyres for 80 years. Furthermore, Nokian produces tyres especially developed for European weather and the higher speeds on European motorways. Nokian tyres deliver excellent safety, save fuel, and are the forerunner of environmental friendliness. The company is number 1 in terms of brand recognition and appreciation in Scandinavia and Russia and has a positive, exceptional image.

Nokian WR winter tyres are test winners and have achieved numerous further test successes

Nokian WR winter tyres, optimised for European demands, are test winners and have achieved numerous further test successes. The Nokian WR D3 winter tyre scores the top rating “good”, and is thus “especially recommended” in the 2013 winter tyre test of the German automobile club ADAC and the consumer protection organisation Stiftung Warentest and is amongst the best. The Nokian WR D3 is rated “Especially recommended” by the German car magazine auto motor sport. The new Nokian WR SUV 3 high performance winter tyre comes out on top in the big SUV winter tyre test 2013 by OFF ROAD, with the top rating “highly recommended”.

Nokian winter tyres are the test winners in the 2012 winter tyre tests conducted by the German car magazines Auto Bild, auto motor sport, and AUTOStraßenverkehr earning top ratings of “exemplary”, “highly recommended”, and “very good”. In more than 20 winter tyre tests carried out by car magazines in Germany and other European countries last winter, Nokian tyres came out on top and thus confirmed the positive image of the Nordic premium brand. The Finnish tyres are given the top rating of “good” by the German automobile club ADAC and consumer protection organisation Stiftung Warentest.

Standard Nokian winter tyres set a new Guinness world record Fastest on Ice by reaching a top speed of 335.713 km/h.

Nokian tyres rated “good” in the ADAC summer tyre test 2014 and by the consumer organisation Stiftung Warentest and test winner in the German SUV magazine OFF ROAD

Nokian summer tyres are multiple test winners, offering high levels of safety and saving fuel. The Nokian Line summer tyre scores the top rating “good” in the summer tyre test 2014 of the German automobile club ADAC and with the German consumer organisation Stiftung Warentest. Being rated “especially recommended”, Nokian Line is among the test winner group. As such, the Nokian tyre achieved a double success in the two best-selling tyre sizes tested for the compact and middle-sized category and for small cars. The Nokian strengths in the ADAC test: Very balanced tyre, good on wet and dry roads.

The test winner is the Nokian Z SUV in the big SUV summer tyre test 2014 by the German SUV magazine OFF ROAD, with the top rating “HIGHLY RECOMMENDED” and also in SUV MAGAZIN.

Nokian tyres were test winners 70 times or were among test winner group, scoring “good” or “recommended” 51 times in 121 test reports from autumn 2011 to spring 2014 – in Central Europe alone.

Increased safety through innovations: Winter Safety Indicator with snowflake and Driving Safety Indicator (DSI) with aquaplaning warning

The Nokian Driving Safety Indicator (DSI) with the unique snowflake symbol, the Winter Safety Indicator (WSI), on the Nokian WR winter tyre clearly shows the driver the groove depth as a number from 8 to 4 millimetres. The snowflake remains visible down to 4 millimetres. When it disappears, the risk increases and the winter tyres should be replaced. The grooves must be a minimum of 4 millimetres deep in order to provide enough grip on snow and to prevent slush planing and aquaplaning on winter and summer tyres.

The Driving Safety Indicator on the Nokian summer tyres shows the driver the groove depth as a simple figure from 8 to 3. An aquaplaning alert within this warns of the danger of aquaplaning with a drop symbol. It disappears when there are only four millimetres of remaining tread, alerting the driver of the increased risk. No other tyre manufacturer has these innovations.

Nokian Tyres achieved a 1.389 billion euro turnover in 2014

Nokian Tyres achieved a turnover of 1.389 billion euro in 2014 and had over 4,000 employees. In Central Europe, Nokian Tyres operates with own sales companies in ten countries. The company also owns the Vianor tyre and car-service chain that comprises over 1,300 outlets in 27 countries.



www.nokiantyres.com

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www.linkedin.com/company/nokian-tyres-plc

Motorist blog:

<http://hakkapedia.us/blog/en>

Expert blog:

<http://nordictyreblog.com/>

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