

**nokian[®]
TYRES**

IT'S A BEAUTIFUL JOURNEY

PEACE OF MIND IN ALL CONDITIONS

NEW **NOKIAN SEASONPROOF C**

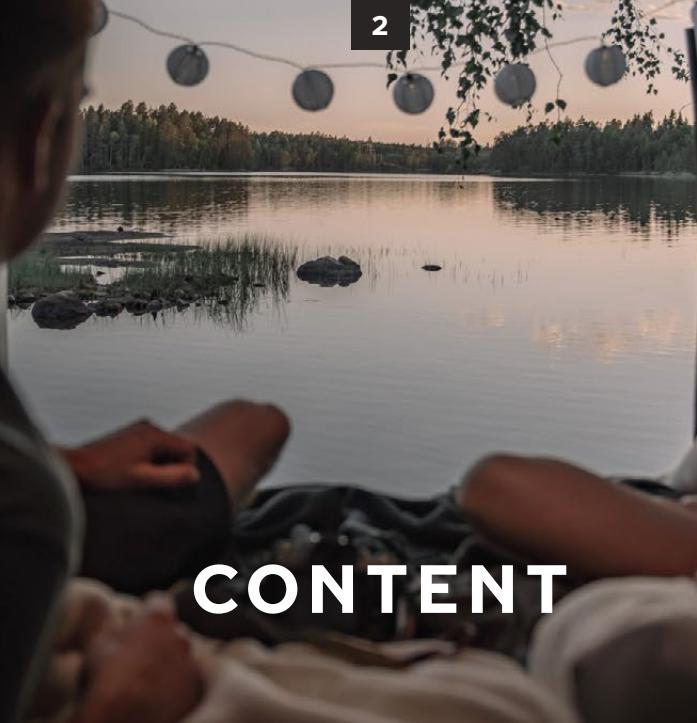
PRODUCT SITE >

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NEW **NOKIAN SNOWPROOF C**

PRODUCT SITE >

PHOTOS & RELEASES >



CONTENT

NEW NOKIAN SEASONPROOF C TIRE – PEACE OF MIND BEYOND FOUR SEASONS	3
NEW NOKIAN SNOWPROOF C TIRE – PEACE OF MIND FOR WINTRY WAYS	4
TESTING CENTER IN SPAIN (SNEAK-PEAK TOUR)	5
FUTURE TIRES: SMART TECHNOLOGY AND SUSTAINABILITY	6
NEW EU TIRE LABELS	7
ALL SEASON TIRES RESEARCH FOR CENTRAL EUROPE	8
AUTONOMOUS VEHICLES WITH SMART TIRES ARE ON THE WAY – SAFER DRIVING IS ON THE HORIZON	9, 10
MAXIMIZE THE DURABILITY AND SERVICE LIFE OF YOUR VAN TIRES	11
SEVEN TIPS FOR SAFE DRIVING ON RAIN-SLICK ROADS: HOW TO PREVENT AQUAPLANING	12

NEW

PEACE OF MIND BEYOND FOUR SEASONS

NOKIAN SEASONPROOF C

YEAR-ROUND CONVENIENCE

The new Nokian Seasonproof C is designed for drivers who need reliability and first-class safety for snowy and slushy winter days but who also want top-notch performance and effortless driving feel in the summer. Developed for hard and versatile use, Nokian Seasonproof C all-season tire offers precise handling and stability, excellent mileage and improved durability.

The new Nokian Seasonproof C offers a practical solution for busy professionals who want to say goodbye to the seasonal tire changes but still want a safe option for every day of the year. The Nokian Seasonproof C will carry heavy loads safely and reliably, ensures safe driving on rainy days and slushy streets and offers comfort and precision on dry roads during summer heat. The new multifunctional tread design offers optimized performance for versatile year-round use. **The Season Sense concept** combines multiple innovative features made specially for all-season use.

The durability of the new product is maximized thanks to **Nokian Tyres' unique Aramid Sidewall technology**.

The extremely strong aramid fibers strengthen the sidewalls and protect the tire against impacts, cuts, and potholes. Combined with a sturdy, tailored construction, the Nokian Seasonproof C offers maximum durability and improved service life for heavy loads and rugged road conditions.



- First-class safety and stability all-year-round
- Excellent mileage and fuel efficiency
- Improved reliability and durability with heavy loads


R 170 km/h
S 180 km/h
T 190 km/h
H 210 km/h

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TYRES



NEW

PEACE OF MIND FOR WINTRY WAYS

NOKIAN SNOWPROOF C

SAFETY AND STABILITY FOR ALL WINTER CONDITIONS

The new Nokian Snowproof C is a safe and reliable winter tire specially developed for professional and heavy-duty use. The tire's most important characteristics are superb winter safety, comfort and durability. Designed to withstand load and wear as the kilometers add up, new Nokian Snowproof C offers excellent service life.

The Nokian Snowproof C is a new premium winter tire crafted to deliver peace of mind for Central European winter. The Nokian Snowproof C offers state-of-the-art safety for daily driving ensuring excellent winter grip on snow, slush and rain. The **Alpine Sense Grip concept** provides an exceptional combination of first-class grip on snowy, slushy, and wet roads while offering predictable and balanced driving experience.

The winter optimized tread pattern offers grip and safety for varying winter conditions and makes handling balanced and easy to control. The Alpine Grip tread compound is optimized for heavy use, which allows it to work safely across a wide temperature range and to reduce rolling resistance. The strong, optimized C tire structure with **Nokian Tyres' patented Aramid Sidewall technology** offers unique durability and improved wear life.



- Safe and stable in all winter conditions, including snow and slush
- Excellent service life – increased mileage and maximum durability
- More driving comfort with reduced noise level

(0) 14-17
inches

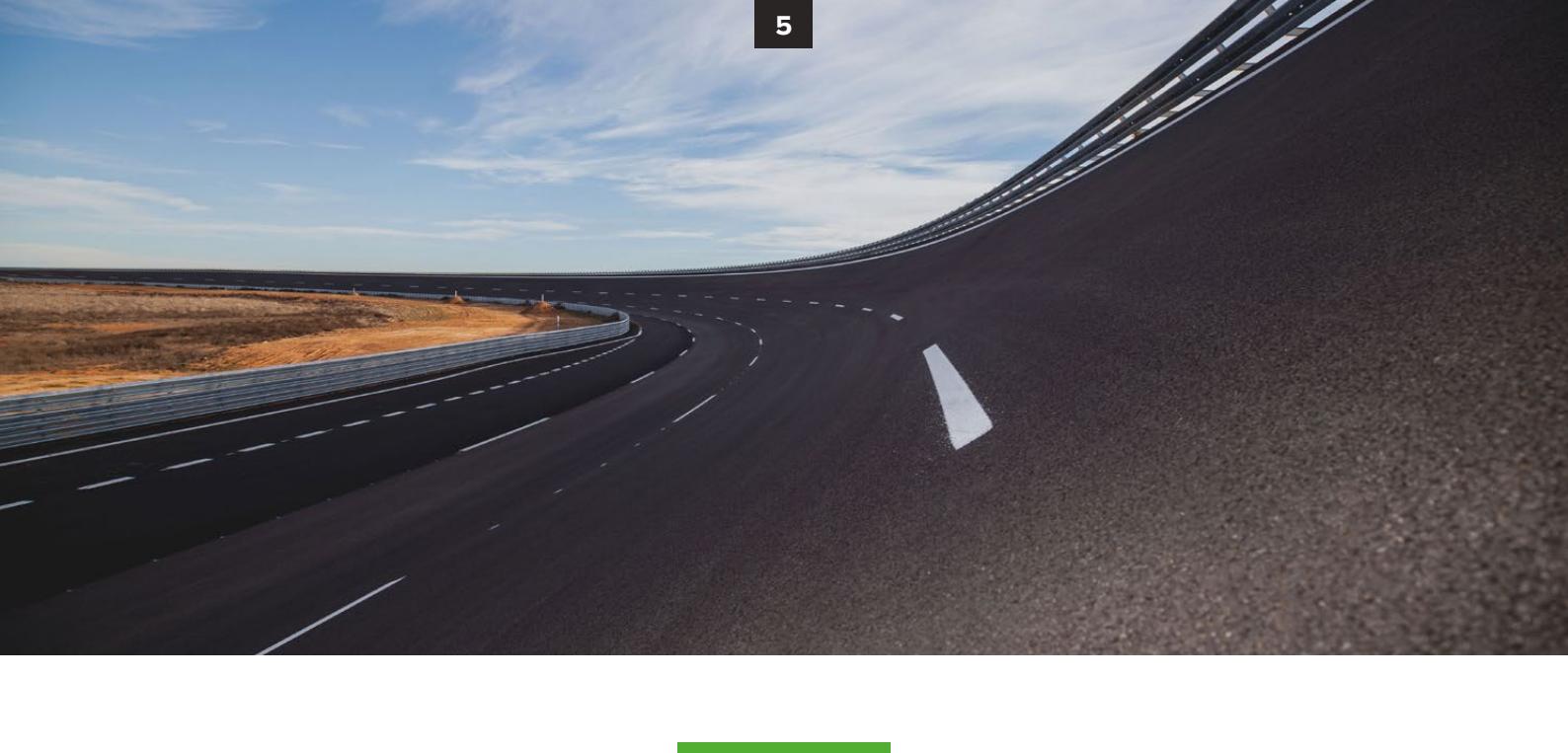


R 170 km/h

T 190 km/h

H 210 km/h

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NOKIAN TYRES SPAIN TEST CENTER IN RAMP-UP PHASE

Nokian Tyres' new, state-of-the-art test center in Spain enables year-round testing of summer, all-season and winter tires. The building of the site will be completed in 2021, and tire testing is now in the ramp-up phase. The total investment is estimated to be EUR 60 million. The new test center is an investment in inventiveness, which is one of the company's core values. This new facility improves competitiveness as it enables year-round testing of the premium products especially designed for the growth markets in Central Europe and in the US.

"The investment in the new test center is fully in line with our long-term goals of developing new products that will strengthen our growth on European markets. It is a real milestone for us as this investment in testing is the largest single one the company has made in its history," says Daniel Rodriguez, Head of Nokian Tyres Spain Test Center.

Nokian Tyres broke ground on the test center in May 2018. The 300-hectare site with 10 tracks is situated in Santa Cruz de la Zarza, a small town about one hours' drive south of the Spanish capital Madrid.

State-of-the-art testing

The main focus is on summer and all-season tires and tires with a high speed rating. Also VAN tires will be tested here. Another focus area of the test center is to develop each product's year-round safety properties, which means that also winter tires will be tested at the facility.

The crown jewel of the test center is the 7-kilometer-long high-speed oval track, which enables testing at speeds up to or even exceeding 300 km/h. Surrounded by the oval track, there will be several test tracks to study the behavior of the tires in terms of wet and dry handling, braking and aquaplaning. These facilities will also be used for tire approval



tests, such as noise and wet grip grading. The hot weather provides a great setting for testing of tires in different conditions.

The new test center will be the third for Nokian Tyres. It complements the company's existing tire testing network, which consists of a 700-hectare site in Ivalo, Finland and a site near the Finnish headquarters in Nokia.

→ [Read more](#)

→ [Download pictures](#)

FUTURE TIRES: SMART TECHNOLOGY AND SUSTAINABILITY

The automatization of traffic is advancing, which also sets new requirements for car tires. The old and familiar safety characteristics, such as grip on ice and aquaplaning resistance, will be joined by technology that produces real-time data.

According to a survey commissioned by Nokian Tyres, Nordic drivers want above all else the following three things from future tires: 39% of respondents want low rolling resistance, which will reduce fuel and electricity consumption while driving; 39% also want smart tires that can automatically adjust to the changing weather with sensor technology. 37% of respondents value good wear resistance, which will also result in eco-friendliness.

The characteristics of the Nokian Hakka Green 3 do their part in meeting the drivers' future needs and wants. Improved wear resistance allows you to drive greener for up to an additional summer season, and the tire's low rolling resistance saves both money and the environment.

Even though the major tire revolution is still in the works, different sensor and smart tire solutions are already available. TPMS tire pressure sensors are already well-known to consumers, for example, but more advanced technology



has so far been reserved for professional use. However, **Jukka Kasi**, Senior Vice President, Products & Marketing for Nokian Tyres, believes that various sensor solutions will become commonplace in consumer use – even before we ever see fully autonomous vehicles on the roads.

– Smart tires will first become common on electric vehicles, since they have large tires and lots of sensors and links to the tires. This will happen in about five years, Kasi estimates.

→ [Read more](#)
 → [Intuitu – Smart tire for tractors](#)



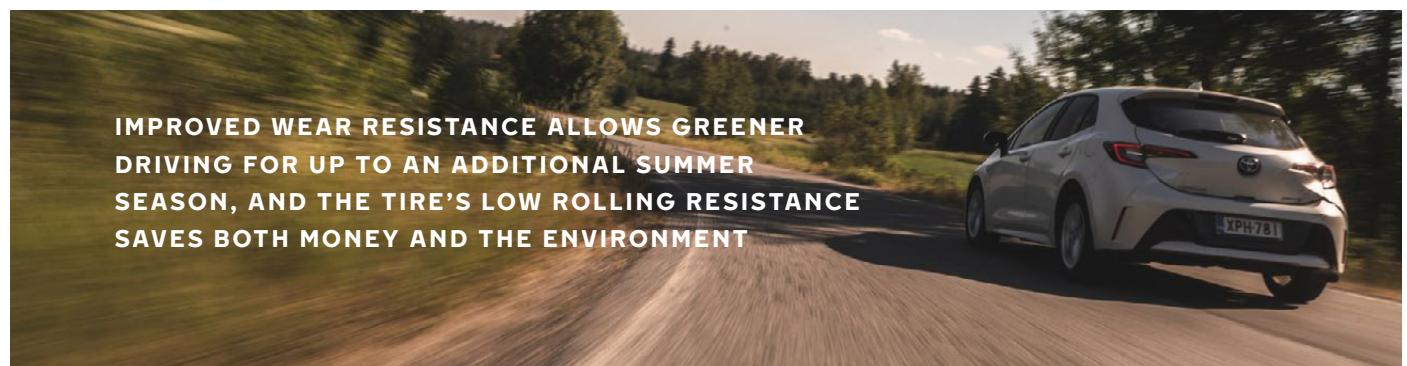
Drivers want above all else the following three things from future tires*:

LOW ROLLING RESISTANCE, WHICH WILL REDUCE FUEL AND ELECTRICITY CONSUMPTION WHILE DRIVING

SMART TIRES THAT CAN AUTOMATICALLY ADJUST TO THE CHANGING WEATHER WITH SENSOR TECHNOLOGY

GOOD WEAR RESISTANCE, WHICH WILL ALSO RESULT IN ECO-FRIENDLINESS

*Smart technology and autonomous or self-driving vehicles may be among the key concepts in the future of mobility. If you could choose, in which direction would you develop future tires? Please choose a maximum of three important features. Source: YouGov online survey for Nokian Tyres, Feb 2020, N=3004 small to medium sized car owners



NEW EU TIRE LABELS THAT MAKE COMPARING TIRES EASIER ARE INTRODUCED IN MAY

Europe will be the first region in the world to start using an ice grip label for tires. In addition to this, tires will have a snow grip symbol and a QR code that lead to an extensive, European database. The change will become effective on May 1.

The aim is for the new labels to help buyers compare different tires and guide them toward safer, eco-friendlier tire choices. As a winter tire pioneer, Nokian Tyres has been working for a long time to develop the labels. This work is now paying off. Tire labels will be renewed across the entire EU. New labels are required on tires manufactured after April 2021, so the new labels will start gradually appearing on tires that are offered for sale.

All-season tires, summer tires, and non-studded winter tires sold within the EU received the first EU tire labels in 2012. Thus far, the label requirement has applied to tires for passenger cars, SUVs, and vans, and the required information has included rolling resistance, wet grip, and external rolling noise. The labels are now changing, and the information must also cover grip on snow and ice, the previous scale is being renewed, and a QR code is added to the label. The requirement does not apply to studded winter tires.

In practice, wet grip is the opposite of ice grip: developing one usually reduces the other. Tires designed for Central Europe emphasize the characteristics required on bare roads, whereas the ice grip symbol indicates that the tire genuinely works and remains safe in the challenging Nordic winter conditions. That's why it is not recommended to use tires designed for Central Europe under conditions that they are not intended for.

Truck and bus tires will also receive labels

The new labeling system may even guide tire choices on the B2B side, as the requirements will now extend to truck and bus tires. There, the tire labels have only been used in marketing materials. These tires will not have an ice grip symbol.

"The increased emphasis on sustainability will make low rolling resistance and fuel economy even more important. On the other hand, snow grip is very important especially in Germany and the Nordic countries. We need to remember to maintain a good balance between the different characteristics," says Product Manager Teppo Siltanen from Nokian Heavy Tyres.

Nearly 90% of a tire's carbon footprint is generated during its use, which is why Nokian Tyres has been working for a long time to lower the rolling resistance of its products. We have reduced the rolling resistance of our tires by 8.5% on average compared to 2013. Lower rolling resistance means lower fuel consumption and lower carbon dioxide emissions.

Massive database of all tires

When the EU wanted to add a rolling resistance label on tires in the early 2000s, the tire industry required a wet grip label alongside it in order to avoid an emphasis on energy efficiency at the cost of safety. The environmental organizations wanted to have a noise-related characteristic on the label, and this led to the original label that indicated rolling resistance, wet grip, and external rolling noise.

The goals for the renewal of the tire labels include making choice easier for tire buyers and improving overall driving safety. The original goal for the tire labels – that is, reducing emissions – remains valid.

The QR code is a new item on the tire label that will guide you to a massive database that accumulates information on all of the tires available on the European market. The product information is standardized, allowing for an easy comparison of the tires. In the future, the tire labels will be expanded further, as they will also report abrasion, or tire wear, and mileage or the tire's service life on the road. The decision has already been made but confirming the test methods will take years.

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→ [Download pictures and infographics](#)





NOKIAN TYRES: EUROPEAN DRIVERS CHOOSE ALL-SEASON TIRES FOR TWO MAIN REASONS – CONVENIENCE AND SAFETY THROUGHOUT THE YEAR

More than half of European drivers with all-season tires choose them for their convenience as all-season tires do not need to be changed twice a year. Another reason, according to the survey* conducted by Nokian Tyres in the past year, is the safety aspect. 50% believe that all-season tires are safe enough to use throughout the whole year in central Europe and they meet all the regulatory requirements for winter tires. The survey** was conducted in four countries: Germany, France, Italy and Poland. The new Nokian Seasonproof all-season tire is designed for drivers who need reliability and first-class safety for snowy and slushy winter days but who also want top-notch performance and effortless driving feel in the summer.

“The growing need for added safety in unexpected wet and snowy conditions, even out of season, is one of the major reasons why a number of European vehicles are fitted with tires, which can handle all the varying weather,” says Catja Wiedenmann, The Head of Marketing in Nokian Tyres Europe. According to a survey by Scandinavian premium tire manufacturer Nokian Tyres, European drivers specially valued safety in all weather conditions throughout the year. This is an important fact, since weather conditions in Europe are extremely varying, according to the Global Climate Risk Index.*

Grip and handling with good wear and tear resistance and safe winter properties in changing environment were also among the most relevant properties. Drivers that took part in the survey stated that they choose all-season tires for two reasons: convenience and safety. The usually high prices of all-season tires are one reason why many households still prefer seasonal ones though. Convenience is the main factor for Italian drivers with 70% of them agreeing to some extent, followed by 63% of German drivers. For Polish drivers, safety is the most important issue with 74% agreeing that all-season tires are safe enough for all seasons, followed by French and Italian drivers with 56% and 54% respectively.

However, the study participants still wish for some improvements in all-season tires. The biggest wish is for manufacturers to improve fuel efficiency followed by good wear and tear resistance as well as the purchasing price. When it comes to driving on snow and slush, especially Italian drivers (41%) have concerns as do German and French drivers (34% and 35% respectively), because they believe that the local weather in winters still require winter tire properties.

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→ [Download pictures](#)

*<https://germanwatch.org/de/19777>

**About the all-season tire study 2020: The data is based on an online survey taken in May 2020 by YouGov research company for Nokian Tyres. The survey was conducted in four countries (Germany, France, Italy and Poland) with a sample of 300 all-season tire users from each country. At the time of the study, the respondents were older than 18 years who participated in a tire purchase before. The aim of the study was to analyze the sentiment towards all-season tires as opposed to seasonal tires and the reasons behind this decision.



AUTONOMOUS VEHICLES WITH SMART TIRES ARE ON THE WAY – SAFER DRIVING IS ON THE HORIZON

Autonomous vehicles have arrived on Finnish roads. The growth of self-driving cars and smart tires will also improve road safety.

In the future, tires designed for autonomous vehicles will require smart characteristics in addition to traditional ones such as wet grip. The sensor technology in tires will provide us with even more information on the driving conditions and their changes.

“We will be seeing even more driver assist features, especially in premium tires, within a few years. The popularization of smart tires and autonomous driving is also likely to reduce traffic accidents,” says **Mika Penttilä**, Head of Digital Technology for Nokian Tyres.

Tire sensor technology offers unique measurement data

Sensors attached to tires can be used to acquire information on tire pressure, temperature, and wear. This information is useful to passenger car drivers, but for autonomous driving, it is a basic enabler.

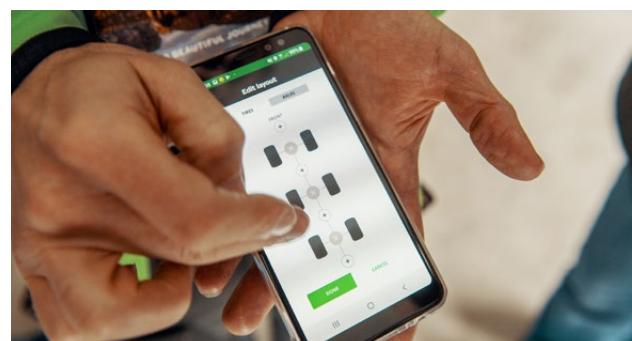
“Tire sensors provide information on the driving conditions that has traditionally not been available. In the absence of a human observer in the vehicle, everything has to be based on measurement data,” Penttilä explains.

In addition to measuring pressure, temperature, and wear, one of the early features will be related to measuring the vehicle load. This is especially important for autonomous vehicles, as it allows for automatically ensuring that a

self-driving bus is not overcrowded, for example.

In addition to safety factors, smart tires also have an environmental aspect. Fuel consumption will be optimized when the vehicle knows the ideal tire pressure for each situation.

“Data on tire condition allows for optimizing their lifecycle,” Penttilä adds.



Domestic and international pilot projects for self-driving buses

We are now receiving the first taste of smart tires and autonomous vehicles. Nokian Heavy Tyres started the sales and delivery of smart tires last fall. They are based on the [Intuitu concept](#) that links tires for agriculture and contracting to a mobile app in its first stage.

Meanwhile, the GACHA self-driving bus pilot project has been used to gather experience on autonomous driving. The GACHA self-driving bus, built and automated by Sensible 4 from Finland and designed by Muji from Japan, ran in Pasila for 300 hours last summer, carrying a total of 190 passengers.

"Despite the challenging situation in the world, customers in Pasila were able to enjoy the ride in GACHA and we received praise for its smoothness. We are currently planning new pilot projects for the United Arab Emirates and Japan, for example," says CEO **Harri Santamala** from Sensible 4.

During the pilot in Pasila, GACHA ran on Nokian Tyres' Hakka summer tires; they did their part in order to ensure a smooth, comfortable and, above all, safe ride. The wet grip properties of the [Nokian Hakka Blue 2 SUV](#) summer tires kept GACHA going even in harder summer rain.

"The software in an autonomous vehicle is programmed for specific conditions and based on a specific level of friction. The defined minimum friction level must be met in all conditions," Santamala emphasizes.



Smart traffic is no longer a wild vision of the future; we are seeing more concrete examples every day. Sensible 4 is continuously developing and testing its software for wider use. At the moment, a one-year self-driving pilot is underway that serves customers in the Oslo region in Norway. Santamala believes that autonomous vehicles will be mainstream by 2035.

Read more:

- [Autonomous driving: The world's first all-weather robot bus runs on Nokian Hakkapeliittas](#)
- [Smart tires are coming – how consumers will benefit from sensor technology](#)





MAXIMIZE THE DURABILITY AND SERVICE LIFE OF YOUR VAN TIRES

Low tire pressure is a very common cause of van tire damage, as not everyone is aware of the higher than normal pressure required for van tires. Keeping the pressure at a sufficient level will improve traffic safety and extend the tire's service life. Tire structure and correct storage between seasons also affect the durability of van tires.

"Very often, structural damage and bead area damage on van tires are caused by tire pressure that is too low in proportion to the load. Too low tire pressure will cause the tire to flex excessively under load, which in turn will heat up the tire body. The tire will also wear down faster," says Technical Customer Service Manager Matti Morri from Nokian Tyres.

Many are surprised by the higher inflation pressure required in van tires. Morri mentions the common size of 235/65R16 C as an example. In this size, maximum load requires a pressure of 575 kPa. For the sake of comparison, passenger car tires in the size 205/55R16 commonly have recommended pressures of 220–230 kPa. The recommended pressure for different loads is usually explained on the driver's side door pillar or the fuel tank lid.

In addition to tire durability, tire pressure also affects driving safety, economy and eco-friendliness. Too low inflation pressure makes the tire harder to control in extreme situations, increases fuel consumption and significantly reduces the tire's service life. You should check your tire pressures at least once every month.

In addition to higher operating pressure, you should also pay attention to your choice of valves in van tires in order to make sure they match the pressure levels being used. Morri recommends using metal valves.

The fibers used in bullet-proof vests also strengthen tires

Regular passenger car tires are sometimes seen being used

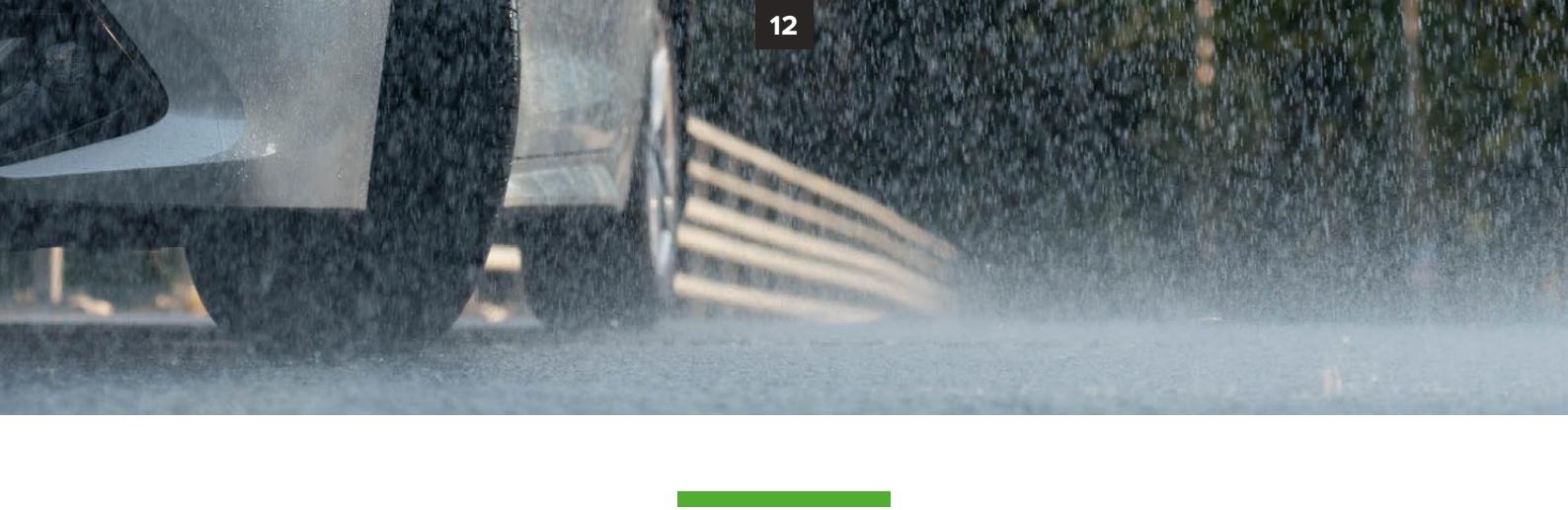
on vans. However, experts think it is of utmost importance to use C category tires, especially designed for vans. On van tires, the body structure, belt package below the tread and the rubber compounds are more durable and tailored for heavier use than on regular passenger car tires. In practice, you can see this in the fact that C tires will warm up less under load, which in turn reduces the risk of tire damage.

When choosing van tires, you should also pay attention to the materials used on the tires and their durability. Unique aramid reinforced sidewalls offer special strength to Nokian Tyres' van tires. Aramid fiber is also utilized by the aerospace and defense industries, for example. Aramid-reinforced sidewalls are better at resisting impacts and cuts from potholes and curbs, for example. Aramid protects the tire against expensive and dangerous damage, and it can even help you avoid some damage.

When changing tires, also check the condition of your tread

When changing tires this spring, you should check your inflation pressures as well as the condition of the tire tread. The law states that summer tires must have a tread depth of at least 1.6 millimeters; in practice, however, the tire's safety characteristics will be substantially affected when the tread depth falls to 4 millimeters. The risk of aquaplaning will increase, in particular, and braking distances in wet weather will also be extended.

The storage conditions of your tires will also affect their service life. Between seasons, tires should be stored indoors in a cool, dark and dry place in order to prevent UV light or incorrect storage temperatures from affecting the tire's rubber compound.



SEVEN TIPS FOR SAFE DRIVING ON RAIN-SLICK ROADS IN THE FALL: HOW TO PREVENT AQUAPLANING

As the fall rain arrives, you should refresh your skills on how to prevent aquaplaning and what to do if, despite all of the precautions taken, it should surprise you. Now is also the time to check your tires: do you still have enough tread depth for the fall or should you purchase new summer tires?

Aquaplaning is a substantial risk on wet roads and in heavy rain, in particular. Once the tire's tread pattern can no longer displace all of the water between the tire and the road, the contact between the tire and driving surface will be lost. The car rises on top of a water cushion, causing a loss of control.

– Now is a good time to check the condition of your summer tires for the fall, as sufficient tread depth is the most important factor in reducing the risk of aquaplaning. You can tell that your tires are worn when the car becomes difficult to control on wet roads, but you should definitely replace your tires before this happens, says **Matti Morri** Technical Customer Service Manager for [Nokian Tyres](#).

The lower your tread depth, the lower the speed at which grip will be lost. The law states that summer tires must have a tread depth of at least 1.6 millimeters; in practice, however, wet grip will be reduced and braking distances will be substantially extended when tread depth falls below 4 millimeters. In a test by Tekniikan Maailma magazine (6/2020), a worn tire (tread depth 2.5 mm) started aquaplaning at a speed of up to 15 km/h lower than that of a new tire.

Good tires, proactive driving, and keeping calm are the keys to safe driving in the rain

In addition to the amount of water on the road and your tires' tread depth, your driving speed and the condition of the road will also contribute to aquaplaning. Even good tires will not help you if you are driving too fast. Being proactive and adjusting your driving can significantly affect the risk of aquaplaning.

1.
Make sure that you have sufficient tread on your tires; this is especially important if the last time that you checked your tires was when fitting them in the spring. The minimum recommended tread depth is 4 mm. Use tires that are appropriate for the season – winter tires are designed for safe winter driving, but they are unsuitable for summer roads.

2.
Remember to adjust your speed and keep a minimum safe distance. In heavy rain, you should reserve additional travel time and drive up to 15–20 km/h slower than normal.

3.
Avoid driving in the ruts, as they will accumulate more water than other parts of the road. Ruts should be avoided even in dry weather, as the road surface is rougher inside them and will cause more wear on your tires.

4.
Check the inflation pressures of your tires. Tire pressure that is too low will have a negative impact on the vehicle's handling and behavior under extreme conditions. Fuel consumption will also increase slightly compared to the correct pressure.

5.
Having all four tires in equally good condition is the safest scenario. If there are differences between the wear of the

front and rear tires, you should fit the better tires on the rear axle.

6.
Clean your windshield wiper blades and replace them as necessary in order to ensure maximum visibility in the rain. The blades need to be replaced if they leave stripes or a film on the surface of the windshield after cleaning.

7.
If aquaplaning still happens to occur, press the clutch pedal down and lift your foot off the accelerator. If your car has an automatic transmission, lift your foot off the accelerator. Keep the steering straight in order to avoid sudden, sharp turns when the grip is restored.



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