

JOY IS WELL INFORMED.

THE BMW APPROVED TIRES REFERENCE GUIDE.



WELCOME.

Ever heard the expression, "Where the rubber meets the road"? It's used to describe that high-stakes moment of truth when performance is the only thing that matters. It's also an apt description of the BMW Approved Tires that play an integral role in the handling, operation, and safety of every BMW vehicle.

Tires don't simply provide the driver's sole connection between the vehicle and the road. They're ingrained in the DNA of each BMW, complementing the chassis components from steering to brakes and enhancing the vehicle's driving properties and performance.

In the following pages, you'll learn more about the importance of BMW tire selection — from their construction and unique properties to choosing the right tire for seasonal driving conditions. Because when the rubber meets the road, every BMW driver deserves the uncompromising excellence of BMW Approved Tires.

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JOY REACHES FOR THE STARS.

BMW APPROVED TIRES.

Hold up your hand for a moment and consider this: The surface area you see is a close approximation of the area of contact between a tire and the road. Now, imagine having to transmit energy such as brake force, engine power and driving dynamics to this palm-sized area — all in a fraction of a second.

Clearly, precise harmonization of wheels, tires and chassis components is essential to achieving peak vehicle handling and performance — the very reasons discerning drivers choose BMW.

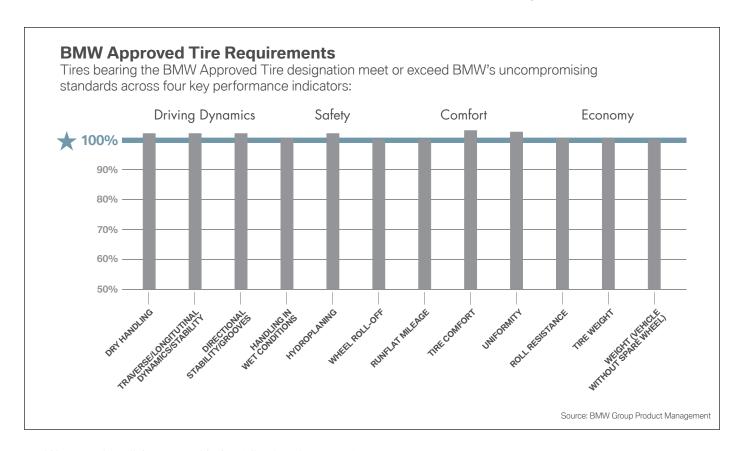
BMW Approved Tires are developed and tested in collaboration with leading tire manufacturers worldwide. Summer to winter, conventional to run-flat, every BMW Approved Tire delivers outstanding value on three distinct levels — uncompromising safety, unparalleled handling, and unbeatable performance.

Setting new standards for precision and value

BMW Approved Tires — easily identified by the raised star molded into the sidewall — are designed and manufactured to BMW's exacting performance standards. Extensively tested and specifically matched to individual BMW models, BMW Approved Tires are crafted to deliver superior handling with solid acceleration, crisp cornering, and smooth braking for enhanced active safety.

Though other products may appear similar or bear identical type designations, only tires bearing the raised star are guaranteed to have the design features and properties exclusive to BMW Approved Tires.

By insisting on BMW Approved Tires, customers are assured they are receiving tires that are perfectly matched to their individual BMW model and meet or exceed stringent BMW requirements.



BMW currently collaborates with the following tire manufacturers:







GOODFYEAR



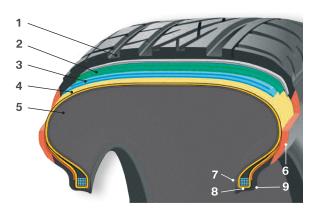


A peek inside BMW Approved Tires

Modern tires are surprisingly high-tech products, manufactured from state-of-the-art materials and designed with the latest safety research in mind. The cross-section shown below demonstrates the complexity of construction in a BMW Approved Tire:

Tread layer

- 1. Tread area for superior road grip and maximum water displacement
- 2. Body ply for advanced high-speed capability
- 3. Steel cord belt layers for optimized driving stability and roll resistance



Interior

- 4. Cord body insert for shape retention even at high levels of interior pressure
- 5. Protective layer to seal the air-filled interior
- 6. Side strip to guard against lateral tire damage
- 7. Core profile for improved driving stability, steering and comfort response
- 8. Steel core to ensure firm grip between tire and wheel
- 9. Bead reinforcement to maximize driving stability and steering response

All BMW Approved Tires feature built-in tread wear indicators (also known as wear bars). These indicators become visible when a tire is overly worn and needs replacement.



Commonly asked questions about BMW Approved Tires

Q. Why buy a BMW Approved Tire?

The contact area or "footprint" of a tire forms the only connection between the vehicle and the road, making it the last and crucial link in the performance chain. Tire characteristics have a significant impact on all driving properties, and play a vital role in chassis set-up, especially the configuration of BMW's electronic stability system. That's why BMW undertakes such extensive research and development in the design and manufacturing of BMW Approved Tires, recognizing that the result is a tire that perfectly matches each vehicle in terms of quality, driving dynamics, comfort and value.

Q. Is there a fundamental difference between BMW Approved Tires and similar models without the star?

Tires with the BMW star have been designed and manufactured specifically for a particular BMW model. These tires can be very different from those offered by independent tire dealers, even if the tire has a similar or identical type designation and outward appearance. It is primarily the tire's internal engineering that distinguishes it from its unmarked counterparts. See the diagram on page 4 for details on the construction of BMW Approved Tires.

Q. Are BMW Approved Tires more costly than regular tires?

BMW Approved Tires are competitively priced with premium-quality performance tires. Though one can easily compare price, it is more difficult to compare value and performance, as only BMW Approved Tires are manufactured specifically for each individual BMW model. See the chart below for a recap of the benefits of buying BMW Approved Tires.

Q. Where are BMW Approved Tires available?

BMW Approved Tires are available at authorized BMW centers, along with BMW trained technicians and BMW approved equipment for professional installation and balancing. By relying on their BMW center's knowledge and expertise, drivers are assured they will receive the right tire on the right wheel.

Q. What types of tires are included among BMW Approved Tires?

BMW Approved Tires include all-season, performance, and winter tires, available in both run-flat and conventional models.*

Why Buy BMW Approved Tires from a BMW center?

	BUYING BMW APPROVED TIRES FROM A BMW CENTER	BUYING TIRES "OFF THE RACK" FROM TIRE OUTLET	
Guaranteed to be a BMW Approved Tire	*		
Immediate availability	*	_64431 <u>44</u> 411111	
Installed by a BMW trained technician	*		
Installed using BMW approved equipment	*		
Competitively priced	\star	V	

^{*}Certain limitation and restrictions apply. Drivers should check their specific vehicle's Owner's Manual for complete details.

JOY NEVER LEAVES YOU FLAT.

BMW APPROVED RUN-FLAT TIRES.

BMW Approved Run-Flat Tires (also known as Run-Flat System Component or RSC tires) represent a quantum leap in tire manufacturing technology. With their reinforced sidewalls and precise fit on specially designed wheels, these tires offer numerous benefits to BMW drivers:

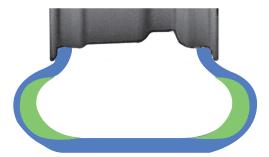
- Handling safely in emergencies –
 Vehicles maintain directional stability in the event
 of sudden pressure loss due to road debris or a
 pothole. In addition, important safety features
 such as Anti-lock Braking Systems (ABS),
 Dynamic Stability Control (DSC) and xDrive*
 remain fully functional.
- Protection in the event of a breakdown –
 Changing a tire under hazardous conditions is a
 thing of the past, as BMW Approved Run-Flat
 Tires do not have to be changed immediately
 at the side of a busy road.
- Convenience Even with complete pressure loss, it is still possible to drive without changing tires. At a maximum speed of 50 MPH, drivers can travel up to 150 miles depending on vehicle load and extent of tire damage.**
- Economy By eliminating the weight of a spare wheel and jack, the BMW vehicle design offers improved fuel economy and increased storage capacity.

The BMW Approved Run-Flat Tire system includes three components:

- BMW Approved Run-Flat Tires with emergency running properties, including reinforced sidewalls designed to support the weight of the vehicle after a puncture or loss of air pressure
- Extended hump wheels designed to secure the tire to the wheel in the event of sudden pressure loss
- Tire pressure monitoring system that continually measures tire pressure and immediately reports any significant loss of pressure to the driver



Conventional tire and wheel after a puncture



BMW Approved Run-Flat Tire and EH2+ wheel after a puncture



^{*}xDrive is BMW's all-wheel-drive system.

Commonly asked questions about BMW Approved Run-Flat Tires

Q. Why did BMW switch to run-flat technology for its vehicles?

BMW chose the run-flat tire system for several reasons, including increased safety and convenience for its customers. Too often, hazardous conditions exist when attempting to change a tire in the dark or on the side of a busy highway. Sudden loss of pressure while driving, especially at highway speeds, can also cause a driver to lose control of his or her vehicle. The BMW Approved Run-Flat Tire System lessens the major risks associated with these common driving scenarios, helping drivers avoid injury and preventable damage to their vehicles.

Q. How do BMW Approved Run-Flat Tires compare to conventional tires in handling, comfort and mileage?

Thanks to their innovative design, BMW Approved Run-Flat Tires have high handling reserves, especially in terms of steering. Suspension is set on new models with optimal ride comfort or performance characteristics. When it comes to mileage, BMW Approved Run-Flat Tires are no different from conventional tires.

Q. Can BMW Approved Run-Flat Tires be retrofitted to older BMW models?

BMW recommends that OEM tires or their current equivalent be used on older vehicles.

Q: What are the limitations to operating a vehicle with a damaged BMW Approved Run-Flat Tire?

As soon as the tire pressure monitoring system indicates loss of pressure, drivers must adapt their driving style to the type of road surface, in particular avoiding impact stress such as potholes. Drivers are advised not to exceed 50 MPH (depending on vehicle load and extent of tire damage) and can travel up to 150 miles to reach a BMW center.*

Q: Why must BMW Approved Run-Flat Tires be mounted on special EH2+ wheel?

The wheel's extended profile was developed especially for BMW Approved Run-Flat Tires. When compared to conventional wheels, the extended hump (shown at left) offers increased adhesion between the tire bead and wheel. This ensures that BMW Approved Run-Flat Tires remain in place even when completely pressure-less — a considerable safety advantage.

Q: Why are BMW Approved Run-Flat Tires only available in conjunction with a tire pressure monitoring system?

When they lose pressure, BMW Approved Run-Flat Tires retain a high degree of stability and lateral support. Without a tire pressure monitoring system, many drivers may not notice during a visual inspection that loss of pressure had occurred.

Q: Should the BMW Approved Run-Flat Tire continue to be used with reduced pressure?

BMW Approved Run-Flat Tires retain their main properties for emergency use only. This ensures that as long as the driver adheres to the recommendations in the Owner's Manual, it is possible to continue driving until the earliest opportunity to replace the damaged tire.

Q. Should drivers of vehicles with BMW Approved Run-Flat Tires switch to conventional BMW Approved Winter Tires?

No. BMW Approved Run-Flat Tires are available in winter models, ensuring that drivers benefit from the safety and performance of this innovative system all year round. If conventional winter tires are used, the necessary equipment for changing the tire (spare tire and changing tools) is not available.

^{*}Certain limitations and restrictions apply. Drivers should check their specific vehicle's Owner's Manual for complete details.

JOY GETS A SEASON PASS.

BMW WINTER TIRES.

Starting at just 45° F, cooler weather has an immediate impact on the all-season or performance tires of every vehicle. Why? Rubber begins to harden as temperatures drop, negatively affecting not only the tire's road gripping ability, but also the vehicle's steering and responsiveness — even on models equipped with xDrive.

In addition to the unparalleled performance delivered by all BMW Approved Tires, BMW Approved Winter Tires offer these extra benefits:

- Cold-resistant silica compounds retain flexibility even at low temperatures
- Sophisticated tread design with interlinking ribs offers improved grip on ice and snow
- Deeper, self-cleaning treads significantly improve tire grip and propulsion on wet roads

On snow-covered surfaces, BMW Approved Winter Tires can significantly shorten braking distance when compared to non-winter tires. Improved stopping distance can mean the difference between a safe, secure stop and an accident when driving in winter weather.

Wet road surfaces can also prove problematic to non-winter tires at low temperatures. The deeper tread pattern of BMW Approved Winter Tires discharges water more quickly, reducing the risk of hydroplaning.

An important note: The optional performance tires for many BMWs (including the X3, X5 and X6) are designed for handling and performance under normal on-road conditions. In winter weather, it is recommended to fit either all-season tires (for mild winter conditions) or winter tires (for severe winter conditions). By choosing low-profile tires; the wheels, tires and suspension parts are more susceptible to road hazard and consequential damage.



BMW Wheel and Tire Sets: The Perfect Balance of Form and Function

BMW's extensive selection of award-winning BMW light alloy wheels offers a style for every taste — all engineered to complement both the aesthetics and performance of the BMW model for which it was designed:

- Virtually immune to wind, weather and de-icing salt with minimal maintenance
- Leverages the alloy's heat-conducting properties to optimize brake system cooling

Tested:

- Nearly 200,000 miles of road testing on gravel tracks
- Bench testing under high-stress conditions
- Exposure to aggressive salt-based corrosives to simulate years of driving on salted roads

Wheel sets are precisely matched with the relevant chassis components and electronic regulation systems to deliver the characteristic BMW driving experience.

Anatomy of a BMW Approved Winter Tire

Tread A more aggressive tread pattern maximizes contact with the road and increases traction.

Symbol The mountain/snowflake mark indicates that the tire meets specific snow traction performance requirements for severe winter conditions.

Grooves Because snow adheres to itself better than rubber, narrow channels between blocks are used to trap snow in the tread, where it can stick to snow on the road.



BMW Approved Tire Star Marking

Blocks Sharper edges and closer spacing allow these rubber "cells" to get a better grip on snow and ice.

Formulations Special rubber compounds enable the tread to remain soft and flexible at low temperatures.

Sipes An abundance of these tiny slits makes the tread more flexible and enhances traction on slippery surfaces.

Commonly asked questions about BMW Approved Winter Tires and Wheels

Q: Must every BMW be equipped with winter tires, even in locations that do not receive significant snowfall?

Snow and icy road surfaces are just one aspect of winter driving. When outdoor temperatures fall, rubber begins to harden as described at left — significantly impacting driver safety and vehicle performance. This phenomenon is known as "glass transition temperature" and generally occurs at 45° F for non-winter tires. With the silica compounds used in BMW Approved Winter Tires, the transition temperature is delayed to an estimated -4° F to -13° F.

Q. What about BMW models with xDrive?

Even the most advanced systems — including ABS, DSC, and xDrive — will only function properly if the vehicle's tires are suitable for the road conditions.

Q: Aren't winter tires subject to faster wear and tear, as well as being noisy and uncomfortable?

Because they are much better suited to cold-weather conditions, BMW Approved Winter Tires are by no means noisy or uncomfortable

when used in winter weather. The use of BMW Approved Winter Tires is not recommended during the summer months, as they will indeed wear more quickly in the heat due to the softer rubber compounds used in their construction.

Q. What is the recommended tread depth for BMW Approved Winter Tires?

In ice and snow, the tires' specially ribbed, self-cleaning profiles effectively ensure that traction and directional stability are maintained and provide the shortest possible braking distance. For this reason, BMW recommends a minimum tread depth of 5/32" for winter tires.

Q. Are different wheels necessary for BMW Approved Winter Tires?

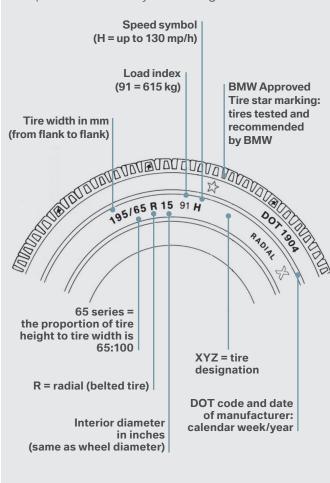
In some cases, the same wheels can be used for BMW Approved Tires and BMW Approved Winter Tires. However, many drivers choose to customize the look of their vehicles based on the season. All Original BMW light alloy wheels are resistant to wind, weather and road salt, and with the proper care will maintain their attractive appearance for years.

JOY IS IN THE DETAILS.

GENERAL INFORMATION ABOUT TIRES.

Decoding the Tire Sidewall

The abbreviations found on the sidewall of a tire can sometimes puzzle even experienced automotive professionals. The diagram below provides a quick-read snapshot of commonly used designations.



Speed Rating

As shown in Decoding the Tire Sidewall, every tire includes a coded speed or performance index — the maximum MPH for which a particular tire is designed. BMW Approved Tires are rated at the highest available speed index for optimal performance.

P – up to 93 mp/h	H – up to 130 mp/h
Q – up to 99 mp/h	V – up to 149 mp/h
R – up to 106 mp/h	W – up to 168 mp/h
S – up to 112 mp/h	Y – up to 186 mp/h
T – up to 118 mp/h	ZR – over 149 mp/h

Load Index

The load index indicates the maximum weight that a tire can accommodate vertically at a given PSI (pounds per square inch). Typically, the load index of the tires for passenger cars and light trucks range from 80 to 100.

Load Index	Pounds	Load Index	Pounds
80	992	91	1356
81	1019	92	1389
82	1047	93	1433
83	1074	94	1477
84	1102	95	1521
85	1135	96	1565
86	1168	97	1609
87	1201	98	1653
88	1235	99	1709
89	1279	100	1764
90	1323	101	1819



Commonly asked questions about tires

Q. What is the DOT code that appears on the tire sidewall?

Mandated by the U.S. Department of Transportation, the DOT code is an alphanumeric character sequence molded into the sidewall of the tire for identification purposes. Each sequence includes a plant code that identifies where the tire was manufactured, and the week and year it was built.

Q. When is a tire considered "old?"

Though modern tire materials contain additives to preserve their properties, the aging of an individual tire depends largely on the conditions of its use and storage. Common best practices dictate that a tire be fitted on a vehicle within five years of manufacture, assuming correct storage conditions. As a general rule, BMW recommends changing tires older than six years, regardless of amount of use.

Q. Should tires be rotated by axle pairs?

BMW advises against putting new tires on just one axle or exchanging tires between the front and rear axle, as these procedures can impair driving properties. In addition, many BMW models feature different tire sizes on the front and rear to optimize handling, so rotating between axles is not feasible.

Q. What is the minimum depth of tread for safety?

In most U.S. states, motor vehicles must have at least 3/32" of measurable tire tread to be considered road worthy and pass state inspection. However, to maintain the vehicle's safety and performance, BMW recommends a minimum tread of 5/32".

Q. What's the best way to maintain BMW Approved Tires and BMW Wheel Sets?

Proper inflation is essential, especially during the winter months when cooler temperatures can cause tire pressure to fluctuate. Incorrect tire pressure can lead to poor ride and handling characteristics, reduced braking performance, diminished vehicle stability, tire damage and even poor fuel economy.

To maintain the appearance of BMW Approved Tires and Wheel Sets, BMW cleaning products are designed specifically for use with BMW light alloy wheels and tires.

Reading Tire Wear

Tire wear patterns can serve as indicators of vehicle condition. Learning to read the early warning signs can often prevent premature shortening of tire life and indicate the need for service such as a front-end alignment.



Proper diagnosis required to determine actual cause of wear. (eq. low tire pressure, alignment, vehicle overload, worn or damaged suspension components, etc.)

BMW Approved Tires

www.bmwusa.com

