





Tires – Summer vs. Winter



Bill Barker 24 Feb 2020

Discount Tire offer for Club members



EXCLUSIVE TIRE DISCOUNT for VCCA CLUB MEMBERS

I recently had some new tires installed at Discount Tire, 361 S. Grady Way, Renton. While talking with the manger, Tom Lincoln, he offered our club a deal that will only be available at his store. You can buy any tire that he has in stock, or that he can order, for 10% below the listed price. This includes vintage tires. Additionally instead of the \$19.50 fee for Mounting and Balancing per tire, he will only charge \$9.50 per tire. Again, this is only available at the S. Grady Way store. Call 425-228-1173 and ask for TOM LINCOLN and if he's not available, leave your name and number. He has hundreds of tires in stock and can also order nearly anything else that you need. Normal delivery time is 3-5 days, although my "specialty" Corvette tires arrived in 14 days. I was extremely happy with the care and attention that his shop guys did on my car. Example: Before jacking up one side to remove the tires, they popped opened the hood, deck lid, and both doors so that none would risk being sprung during the lopsided elevation. Now THAT'S attention to detail.

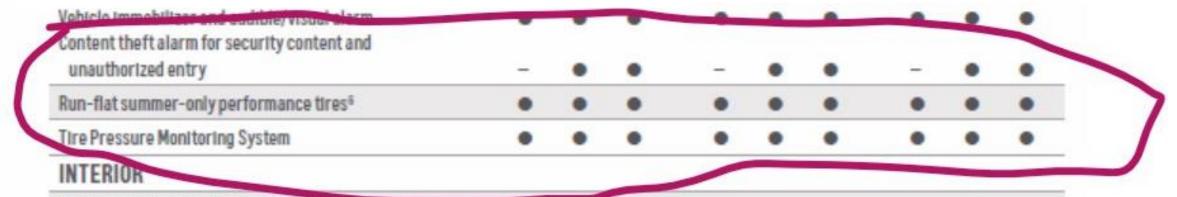
Normal Hi-Performance tires

Many production automobiles today have "Hi-Performance Tires". Usually they are included in the "standard" configuration when you buy a car, but other times they are available in an "optional" package.

These are usually only found on some cars, such as high-end Ford Mustangs, Dodge Chargers and Chevrolet Corvettes.



"Standard" hi-performance tires that are delivered on a 2017 base Corvette. These are 'run flat' design. They are 10 inches wide (19") in the rear and 9 inches wide (18") in the front. (See page 36, below.)



The fine print

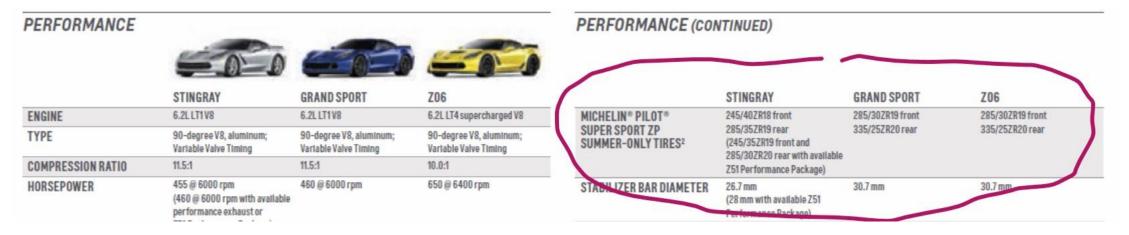
 So what did the fine print say on the "standard" tire selection? Did you ever read it?

Content theft alarm for security content and									
unauthorized entry	-	•	•	_	٠	•	-	•	•
Run-flat summer-only performance tires®		٠	•		•	•			•
The Pressure Monitoring System		٠	•		•	•			
INTERIOR									
Dual-zone automatic climate control with individual settings for driver and passenger, dedicated passenger controls									
and outside temperature display	•		•		•	•	•	•	
Air filtration system with pollen filter	•	•	•	•	•	•	٠	•	•
Color Head-Up Display with readouts for 4 modes, including									
Track mode with g-meter, vehicle speed and engine rpm	-	•	•	-		•	•	•	٠

Customer Engine Build Program: Includes the experience to assemble the LT4 supercharged engine that will power your new Corvette Z06 at the Performance Build Center (see your dealer for complete details)		-	_	_	_	-
Buyers Tour: Includes the unique opportunity for new owners to watch their Corvette being built at the Bowling Green Assembly Plant (requires Customer Engine Build Program; see your dealer for complete details)	_	_	- 1	- 1	-	-
Customer selectable VIN ending ^a	0	0	0	0	0	0
Custom-made interior plaque personalized with your name and VIN	0	0	0	0	0	0

1 These wheels are paired with summer-only tires. Driving on wet roads, in heavy rain, or through standing water with competition-oriented tires may cause hydroplaning and loss of control. Use extreme caution and drive slowly on wet roads. Do not of winter conditions, as it would adversely affect vehicle safety, performance and durability. Use only GM-approved tire and wheel combinations. Unapproved combinations may change the vehicle's performance characteristics. For important tire and w my.chevrolet.com/learn/tires or see your dealer. 2 Requires available Z51 Performance Package or Magnetic Selective Ride Control. 3 Requires available Twilight Blue Design Package or Spice Red Design Package. 4 NOTE ON CHILD SAFETY: Always correct child restraint for your child's age and size, even with air bags. Even in vehicles equipped with the Passenger Sensing System, children are safer when properly secured in a rear seat in the appropriate infant, child or booster seat. Never place restraint in the front seat of any vehicle equipped with an active frontal air bag. See the Owner's Manuai and the child safety seat instructions for more safety information. 5 Visit onstar.com for coverage map, details and system limitations. OnStar active grounders only tires in winter conditions, as it would adversely affect vehicle safety, performance and durability. Use only GM-approved tire and wheel combinations. Unapproved combinations. Unapproved combinations may change the characteristics. For important tire and wheel information, go to my.chevrolet.com/learn/tires or see your dealer. 7 Not compatible with all devices. 8 Not available on all VINs. Subject to restrictions and approval. Available on sold orders only.

Summer Only



P36 Footnote:

6. Do not use summer only tires in winter conditions, as it would adversely affect vehicle safety, performance and durability. Use only GM-approved tire and wheel combinations. Unapproved combinations may change the vehicle's performance characteristics. For important tire and wheel information, go to my.chevrolet.com/learn/tires or see your dealer.

Buried in the Owners Manual on page 265 is this statement:

" Competition oriented tires have rubber compounds that lose flexibility and may develop surface cracks in the tread area at temperatures below -7°C (20°F). ... If the tires have been subjected to -7C (20°F) or less, let them warm up in a heated space to at least 10°C (50°F) for 24 hours or more before being installed or driving a vehicle on which they are installed."

Winter Tires?

P 266 Owners Manual

It is recommended that winter tires be installed on the vehicle if frequent driving at temperatures below approximately 5°C (40°F) or on ice- or snow-covered roads is expected.



When researching the next generation (G8) Corvettes, I noticed that the advertising now includes comments like "summer only...etc "

Tire Information

OWNERS MANUAL Important Information p. 50



TIRES Corvette is equipped with run-flat Michelin ZP *summer-only* tires that eliminate the need for a spare. The tire design enables safe function during and after loss of pressure for some distance at a moderate speed. the shorter the distance that you drive with loss of pressure, the better the chance that the tire can be repaired. As soon as possible, contact Roadside Assistance for the nearest authorized GM or run-flat tire servicing facility and have the tire inspected. See your Owner's Manual. *Corvette tires tend to wear faster and are more susceptible to damage from road hazards or curb impact than standard profile tires.* This type of damage is not covered by the GM New Vehicle Limited Warranty.

Winter Tires Recommended

Owners Manual P 263



Winter Tires

This vehicle was not originally equipped with winter tires. Winter tires are designed for increased traction on snow and ice-covered roads. Consider installing winter tires on the vehicle if frequent driving on ice or snow covered roads is expected. See your dealer for details regarding winter tire availability and proper tire selection. Also, see *Buying New Tires* \$ 278.

With winter tires, there may be decreased dry road traction, increased road noise, and shorter tread life. After changing to winter tires, be alert for changes in vehicle handling and braking.

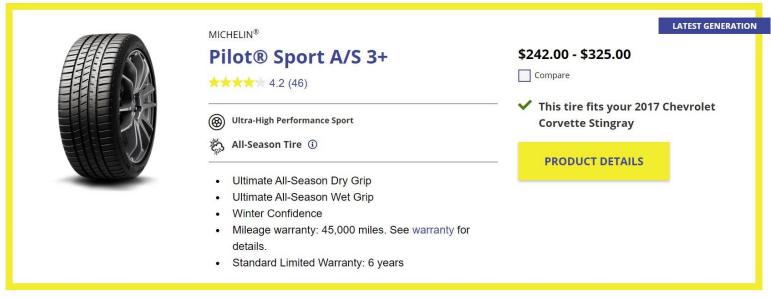
If using winter tires:

- Use tires of the same brand and tread type on all four wheel positions.
- Use only radial ply tires of the same size, load range, and speed rating as the original equipment tires.

New design for all season conditions

When researching the next generation (G8) Corvettes, I noticed that the advertising now includes comments like "summer only...etc" on all of the standard Hi Performance tires. But there is also a little recognized change that **all 2020 Corvette Stingray** <u>base tires</u> are the **Michelin All-Season Pilot Sport All Season 4 tires**.

So I researched further and found the Michelin has been researching this for the past 5 years and began to sell special tires for "some" hi performance cars, such as Porsche, Ford, Audi, Mercedes –etc, about 3 years ago.



Treads: Standard Goodyear vs. All-Season 3+





Standard Hi-Performance Tires

New All-Season Tires

Conclusion

- Hi Performance tires are good for dry conditions above 50°F.
- New **All-Season +3** tires are for mild, wet conditions at mild temperatures.
- New **All-Season 4** tires are identified as "winter tires" good on light snow and temperatures around freezing.

- Tire technology has progressed to the point where these "allseason" tires nearly match the Hi Performance characteristics throughout the temperature range.
- Therefore you can drive your Corvette nearly year-round.

Final Thoughts

- Other manufacturers besides Michelin have new designed All-Season tires for hi-performance cars. You can find ratings list of the top ten on the internet.
- In this presentation I didn't mention the "lateral g's" that were some of the target design specifications for these type of tires. Most people wouldn't know the difference between 95 g and 100.3 g unless they have driven regularly over 125 miles per hour on a closed track.
- Also didn't mention studded tires because, frankly, I hate them. They are an atrocious way to waste tax dollars on roadways that are already begging for maintenance. Don't buy them. Don't use them. And don't drink with your buddies who use them.

Tire Rotation (not your grandfather's method)

276 Vehicle Care

Replace the tire if:

- The indicators at three or more places around the tire can be seen.
- There is cord or fabric showing through the tire's rubber.
- The tread or sidewall is cracked, cut, or snagged deep enough to show cord or fabric.
- The tire has a bump, bulge, or split.
- The tire has a puncture, cut, or other damage that cannot be repaired well because of the size or location of the damage.

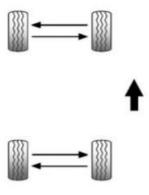
Tire Rotation

The tires should be rotated every 12 000 km/7,500 mi. See *Maintenance Schedule* \Rightarrow 307.

Tires are rotated to achieve uniform wear for all tires. The first rotation is the most important.

Anytime unusual wear is noticed, rotate the tires as soon as possible, check for proper tire inflation pressure, and check for damaged tires or wheels. If the unusual wear continues after the rotation, check the wheel alignment. See When It Is Time for New Tires \$ 277 and Wheel Replacement \$ 281.

Different tire sizes should not be rotated front to rear.



Use this rotation pattern if the vehicle has different size tires on the front and rear.

Adjust the front and rear tires to the recommended inflation pressure on the Tire and Loading Information label after the tires have been rotated. See *Tire Pressure* \Rightarrow 270 and *Vehicle Load Limits* \Rightarrow 177.

Reset the Tire Pressure Monitor System. See *Tire Pressure Monitor Operation* ⇔ 274.

Road Crown Effects (Tramlining)

Groove Tracking

The wide tires on the Corvette provide surefooted grip and excellent road feel; however the wider design may be more susceptible to grooves or wear patterns on some roads. differently than a standard engine lubrication system. See *Engine Oil* ⇔ 230.

Check the oil level only after the engine has been thoroughly warmed up and then check between five and 10 minutes of shutoff. This ensures that the oil level reading obtained will be accurate.

Brake Noise

Under certain weather or operating conditions, occasional brake squeal may be heard with the vehicle's performance braking system. This brake system is designed for superior fade resistance and consistent operation using high performance brake pads. Brake squeal is normal and does not affect system performance.

Tire Chatter/Hop

When driving at slow speeds and in very tight turns, the vehicle may have tire chatter/hop. This condition is normal and the vehicle does not require service.

Road Imperfections/Crown Effects

The vehicle's precise steering and handling make it very responsive to road surface feedback. A slight pull may be felt in the steering depending on the crown of the road and/or other road surface variations such as troughs or ruts. This is normal and the vehicle does not require service.

Fuel (LT1 6.2L V8 Engine)



Premium Recommended Fuel

Use premium 93 octane unleaded gasoline in your vehicle. Unleaded gasoline with an octane rating as low as 87 may be used, but it will reduce performance and fuel economy. See *Fuel* \Rightarrow 213.

Ready To Go Year-Round



