

Recommendations for tire mounting, tire pressure, camber settings and breaking-in procedure of Hoosier racing tires



Tire-mounting

Ambient temperature as well as tire-temperature should be at least 20°C. This makes mounting much more easy and avoids damages to tire and machine.

Have a look at the direction of travel to mount the tire in the right direction. Some wet-tires, rally-tarmac- and gravel-tires have asymmetrical treads. If the tire has a white branding on one side, this is the outside. As a last option there is an alphanumeric production code (4 digits) on one side of the tire (see photo). This code should point to the middle of the car.



If driven, the direction of travel should stay the same the entire life of the tire. To even out the wear, some tires can be turned on the wheel rim but then wheel rim has to change the side of the car to keep direction of travel.

Breaking-in procedure

For optimal performance it is advantageous to scrub the tires and give them a temperature cycle before first competition.

If there is the possibility to scrub the tires by driving around and give them a warm-up, this is the best way to go. This procedure should not take too long and without stress on the tires like hard braking/accelerating or drifting/sliding. Afterwards the tires should be allowed to cool down and cure for at least 24 hours (better for longer). With this breaking-in procedure the tire will perform better his entire life.

Tire pressure

Tire pressure depends on a lot of variables: Driven axle, weight of the car, setup-balance, ambient temperature, grip on the track and driver's preferences. So same tire types can be driven with different air pressures and deliver the same performance. We are happy to provide individual advice – feel free to ask.

Sidewalls of tires have their own spring rates like suspension springs. These spring rates differ within the different tire variants and is of essential importance for the balance and performance of the race car. Tire spring rate can be influenced by the air pressure inside the tire. Especially if you change the manufacturer you need to find out the right tire pressures as it does not have to be the same pressures as before.

Camber

Like tire pressure it is the same with camber: It depends on so many variables like height of center of gravity in combination with hardness of springs and anti-roll-bars (so the rolling gradient of the chassis), weight of the car, driving style and so on, regardless of whether it is a bias ply or a radial tire. You need camber. You have to find out how much camber do you need by reading the tire wear of the tread and the shoulders, taking tire temperatures from the inner, middle and outer tread. In between adjust the tire pressures after your temperature readings and the camber too until there is optimum performance and no excessive wear.

As a rule of thumb, a bias-play tire should not exceed 3 degrees of negative camber. Radial tires can have higher camber settings if necessary but it is not mandatory. Tread wear, tire pressure, tire temperatures and lap times are the indicators for adjusting the right camber.

Please consider the fact camber is changing when driving due to caster settings and suspension movement gaining or losing camber. This dynamic camber can have a greater impact than the static camber settings and depends on your suspension geometry.

Storage and aging

All tires are aging through temperature cycles (when used in competition or if tires are not stored appropriate) and ultraviolet radiation. Tires should be stored in a constantly cool environment, protected from direct sunlight to keep aging process at a low level.

Pickup

Tires are collecting rubber from the track – it is called pickup or other people's rubber. When dialing in the right setup you can minimize pickup on the tires but there is no chance to avoid it completely.

After each session you have to scrub off the excess rubber on the tires to obtain same performance in the next session. To remove pickup we recommend to use an air gun with a special tire scraper to avoid excessive temperatures on the tires tread while scrubbing off the pickup rubber. We offer a pickup removing tool which will save you time and money and keep your tires in best shape.

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