



RACE TIRE BEST PRACTICES GUIDE

Summary

The following document contains best practices for transporting, storing, and optimizing performance of Yokohama race tires, specifically the ADVAN A005 and A006 used in spec series racing. These recommendations are general; they are not specific to a particular series or vehicle. For more precise recommendations, please contact the Yokohama Motorsports specialist assigned to the series in which the vehicle is competing. Contact information is included at the end of this document.

General Recommendations:

- Transport and store tires in a climate-controlled environment.
- Comply with series-specific tire regulations:
 - Minimum pressure is an enforceable regulation.
 - Maximum camber is an enforceable regulation.
 - Tire directional arrows, if applicable, is an enforceable regulation.
- Target the following hot pressures:

A005	A006
28.0 psi – 32.0 psi	33.0 psi – 37.0 psi
1.93 bar – 2.21 bar	2.28 bar – 2.55 bar

- Avoid striking curbs until tire pressures begin to stabilize. Striking curbs before tires are up to pressure reduces the structural integrity of the tire and may lead to failure.
- Tire mileage limits depend on the stresses generated. For tires used at high energy tracks, it is recommended to limit mileage to 140 miles or 225 km.

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Transport and Storage of Tires

Tires should be transported and stored in a climate-controlled environment. Follow these recommendations to reduce the chance of damage during transport and storage:

- Avoid storing tires in direct sunlight
- Avoid storing tires in areas with high heat or humidity
- Avoid storing tires in extreme cold, as prolonged exposure can lead to cold cracking, which compromises the tire's structural integrity.
- For best results, store tires in a cool, dry, dark room between events. Similarly, transport tires in a climate-controlled environment.

Setup for Yokohama Tires

Tire manufacturers design their products with different performance objectives, requiring unique vehicle setups for each brand. To help optimize race cars for Yokohama tires, below is guidance on key characteristics specific to the A005 and A006 treads. For questions regarding other tread patterns or additional performance optimization, please contact a Yokohama representative.

- **Maximize contact patch:** Greater tread engagement with the track surface under load improves cornering performance. Consider reducing camber settings to enhance grip and maximize the contact patch.
- **Account for vertical loading:** With less camber and increased emphasis on vertical load, Yokohama race tires can function as a secondary spring. Review chassis dynamics to maintain control of roll and pitch while optimizing mechanical grip.

Tire Preparation

Before on-track activity, tires should be properly prepared to ensure optimal performance. Follow these guidelines to confirm tires are track-ready:

- **Verify tire sets:** If using previously run tires, ensure all tires in the set were used together.
- **Inflation:** Nitrogen inflation is recommended. Whether using air or nitrogen, confirm the supply is

completely dry and free of moisture.

- **Pressure settings:** Set tires to the safe minimum pressures. Refer to series regulations for any enforceable minimum pressure requirements.
- **Mounting direction:** Confirm tires are mounted with directional arrows aligned correctly, if applicable.



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Cold Tire Pressures

Minimum tire pressures specified in the series regulations represent the enforceable limits. Tires should be handled carefully until they reach optimal pressure. Refer to the 'Target Tire Pressures' section for recommendations. To protect tires from damage while cold, follow these guidelines:

- **Warm tires aggressively** during out-laps and parade/pace laps to bring pressures up quickly.
- **Avoid striking curbs** until pressures stabilize. Contact with curbs at low pressure can damage the sidewall and internal carcass, potentially leading to tire failure.

Target Tire Pressures

Target tire pressures vary based on several factors, including vehicle type, driver preference, track layout, and ambient conditions. The range provided below accounts for these variables. For more detailed, track- or vehicle-specific recommendations, please contact a Yokohama Motorsports Specialist.

A005	A006
28.0 psi – 32.0 psi	33.0 psi – 37.0 psi
1.93 bar – 2.21 bar	2.28 bar – 2.55 bar

Tire Mileage Limits

Racing tires are engineered to wear out by design. The softer compounds used in competition provide superior grip compared to DOT tires but also degrade more quickly. On certain track surfaces, visible wear may not always indicate internal strain, as the carcass can still be compromised. Mileage limits vary based on vehicle speed and load; however, for tires used on high-energy tracks, it is recommended to limit usage to approximately 140 miles (225 km).

Yokohama Motorsports Contact Information

Porsche Endurance Challenge North America Porsche Sprint Trophy (PCA) Dylan Hillger Eric

Pflughaupt

Dylan.Hillger@yokohamatire.com Eric.Pflughaupt@yokohamatire.com

Porsche Sprint Challenge North America/USA West Ford Mustang Cup Dylan Hillger

Eric Pflughaupt

Dylan.Hillger@yokohamatire.com Eric.Pflughaupt@yokohamatire.com

Other Inquiries

Tricia Wall

Patricia.Wall@yokohamatire.com