



TECHNICAL BULLETIN

TB#: TB027

Date: 02/22/2026

—

RE: Tire Management

Priority: Medium

Tire Aging and Temperature Limits

Tires age with time, even if they are not used. Aging reduces compound performance and consistency.

A race tire at 12 months is commonly trending toward reduced peak grip and increased inconsistency.

Store tires indoors between 32°F (0°C) and 106°F (40°C).

Below 32°F (0°C), rubber compound flexibility is reduced and cracking risk increases if the tire is flexed or operated cold.

Above 106°F (40°C), compound degradation accelerates and grip can decline.

Storage Standards

Store in a cool, dry, dark area.

Avoid direct sunlight and prolonged heat exposure.

Keep tires away from ozone sources and chemicals, including electric motors, welders, compressors, generators, solvents, fuels, and aerosols.

Avoid long-term storage in stacks. If stacking is necessary short-term, limit duration and rotate the stack periodically.

If tires have been stored at or below 32°F (0°C), allow them to warm to room temperature for 24 hours before mounting, rolling, or flexing.

Identification and Tracking

Assign each tire a unique ID and mark position history (LF/RF/LR/RR).

Record first-use date and heat cycle count on the tire.

Maintain a one-line session log: session name, cold pressure, hot pressure coming in, ambient temperature, and a single driver note.

NEVER mix tires within the same set that have significantly different heat cycles.

For additional information, please contact Crown Engineering: jmartin@crownconceptsusa.com

For service, please contact Crown Trackside Sales: trackside@crownconceptsusa.com

520-900-7586 - crownconceptsusa.com





TECHNICAL BULLETIN

TB#: TB027

Date: 02/22/2026

Do's

Always target repeatable hot pressures as the primary control metric.

Use dry nitrogen for inflation to improve pressure consistency and repeatability.

Use metallic high-temperature tape to retain wheel weights.

Perform a controlled scrub-in on new tires, then allow them to cool fully back to ambient before the next full-pace run.

Include a cool-down lap when possible to reduce localized heat soak and stabilize the tire condition.

Don'ts

Do not use "shop air" from a piston compressor for race tires.

Do not use a tire that shows cords, structural damage, or cracking.

Do not use a tire that is worn beyond the wear indicators (depth indicators).

Do not use a tire with a severe flat spot or vibration-inducing damage.

Do not run a race tire cold-soaked below 32°F (0°C). Warm it first.

Do not exceed 10 heat cycles as a general ceiling for peak performance expectations.

Do not treat a "shiny" or blued tire as normal. This is a heat history signal and should be evaluated in context of lap time drop-off and driver feedback.

Do not remount used tires across multiple wheel sets unless there is a documented reason and the set remains matched.

Operating Procedures Without Tire Blankets

Lap 1: build temperature smoothly, no aggressive sliding or curb strikes.

Lap 2: increase load progressively.

Lap 3: begin full pace if pressures and balance are stable.

Cool-down: one smooth lap before pit-in when possible.

Technical Support

For tire evaluation and setup guidance, refer to race tire specialists such as Jeremiah Stotler at Apex or Joey Martin at Crown.

For additional information, please contact Crown Engineering: jmartin@crownconceptsusa.com

For service, please contact Crown Trackside Sales: trackside@crownconceptsusa.com

520-900-7586 - crownconceptsusa.com

