

CASTROL CANADIAN TOURING CAR CHAMPIONSHIP

CONTINENTAL TIRE – COMPETITOR INFORMATION

EC-DR and EC-WET FAQ's

Are the "EC-DR" and "EC-WET" tires comparable to any of Continental's existing passenger car road tires?

The EC-DR and EC-WET tires are designated for use in Grand Am's Continental Tire Sports Car Challenge and the Castrol Canadian Touring Car Championship series only. These tires have been developed for the best balance of performance and durability on the prescribed racing surfaces encountered by these series. The EC-DR and EC-WET tires are **not** D.O.T. approved tires and therefore are designated for competition use only on actual racing circuits.

Are there different compounds available?

No. The EC-DR tire is only available in this configuration. The EC-WET tire is also only available in one compound. It is a dedicated "wet" compound.

Tire pressure

See the Tire Pressure Recommended for Competition section (next page) for recommended starting pressures. Expect pressure to build as much as 8-10 psi. (hot) **To determine proper pressure range for the car/driver setup observe wear pattern at shoulder.** Too much roll over on shoulder element means too low air pressure. Conversely, a footprint that doesn't use enough of the shoulder may be too high.

Optimum tire temperature

There is no optimum. The best working range is between 180F-200F. Steps should be taken to address temps over 250F.

Should nitrogen be used instead of air?

The advantage that nitrogen may provide is a lower expansion rate under temperature. This will reduce the difference between hot and cold air pressures in the tires. It does not change the hot pressure that the tire likes best. This effect is generated from the lower levels of moisture present in the inert gas. Higher levels of humidity or excessive use of lubricant when mounting the tire contribute to the pressure differences when normal air is used. The use of nitrogen will generate more consistent and predictable setup characteristics, but only if care is taken to insure that any moisture is removed from the inside of the tire before inflation. The same care in eliminating moisture from the tire will also produce more repeatable results with plain old air as well.

How much camber should I run?

Definition: - more camber means increasing "negative" camber. The top of the tire is leaning in - towards the center of the car. Less camber means "positive". The top of the tire leans outward. In most cases, you should induce as much negative camber as is possible. (Some rules allow -3 degrees maximum, but this is not something you should use as a guideline) Any change in camber may result in a corresponding change in air pressure in order to optimize the tires grip and feel. IN MOST CASES, increasing the camber (more negative) will favor a lower air pressure. This is making the assumption that the pressure was correct to begin with.

How many "heat cycles" are these tires good for?

The tread compound is fairly resistant to heat cycling. The single biggest factor in determining the competitive life of the tires is in the manner they are driven in the first heat cycle.

Can I run a tire opposite its indicated rotation?

Yes. They can be mounted in any position regardless of the direction arrow. For full tread "rain tires" the indicated direction should be maintained.

How do I mount the rain tires?

The tread pattern determines how the rain tires should be mounted. The tread pattern makes these tires directional. The left side and right side are different. Both sides will have the "V" portion of the tread pointing toward the front of the car when viewed from directly above the tire. The point of the "v" tread pattern is designed to roll into the contact patch first to engage the water channeling that maximizes evacuation.

TIRE PRESSURE RECOMMENDATIONS FOR COMPETITION

+Higher pressures will improve the performance capability but will require a more sensitive feel to take advantage of the increase.

One characteristic of the tires is the tendency to “skate” initially (when inflation pressures are correct). It is important to resist lowering the pressure to attempt to eliminate this feeling. Dropping the pressure too far may improve the “feel” of the tire however it will also lower the performance and increase the wear rate.

Banked Oval / Road Courses

On these type of course configurations, the loaded side tires should be elevated four (4) psi (hot) above the normal road course pressure recommendations.

VEHICLE WEIGHT	RECOMMENDED	RECOMMENDED
	HOT AIR PRESSURE	COLD AIR PRESSURE
1800 - 2200 LBS.	34 - 37 PSI	26 - 31 PSI
2200 - 2600 LBS.	35 - 39 PSI	27 - 32 PSI
2600 - 3000 LBS.	37 - 41 PSI	27 - 32 PSI
3000 LBS+	38 - 43 PSI	27 - 33 PSI

FRONT WHEEL DRIVE

Vehicles configured with FWD are probably the most difficult application for a tire setup. The combination of steering, braking and accelerating on the front tires, combined with higher corner weights for the front positions produce a harsh environment for the tire. These vehicles will typically have a strut type of suspension which limits camber gain. All these factors result in conditions which require the tire do more work than a simple chart for pressures can accommodate. In severe cases front tire pressures for FWD vehicles can run in the 48-52 psi (hot). In cases where the tire size is limited to a relatively small tire, the required pressure can run even higher. The front to rear pressure differential on FWD cars can have extreme ranges of inflation, depending on the driver preference, suspension tuning, and track configuration.

Independent rear suspension

With IRS and proper geometry up front, tire pressures can be reduced from the recommendations listed above. When there is adequate camber gain and good roll control, the Continental radial tire will perform very well at the reduced air pressure. This results in a bigger “sweet spot” and easier control at the limit.

When tuning at reduced pressures use the following formula to determine the minimum safe pressure: Divide the total vehicle weight, including fuel and driver, by 100 to arrive at the minimum safe pressure. Example: Your car weighs 2750 lbs. as raced. The minimum safe (cold) pressure is 27.5 psi.

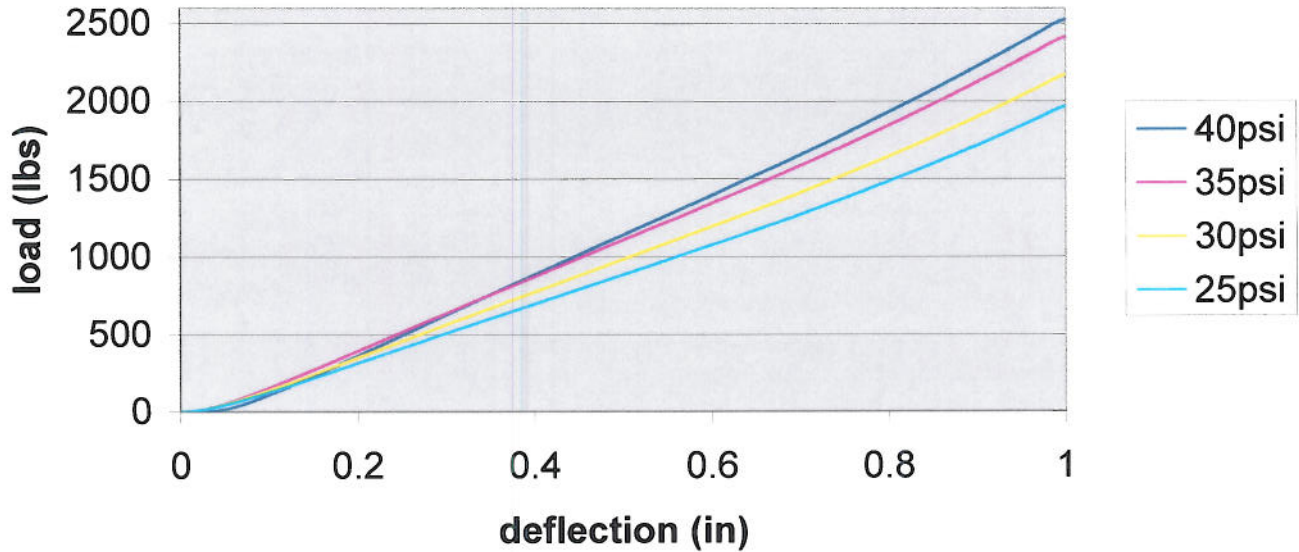
Extreme care should be taken when tuning at reduced pressure. Tire damage can occur that is not visible to external inspection.

Vehicles equipped with independent rear suspension (IRS) have a distinct advantage over non-IRS cars when using radial tires. This is true for two reasons. First, it is possible to setup some amount of static negative camber on IRS suspensions, if needed. Second, the IRS geometry can provide the proper camber gain to achieve the dynamic camber needed for a radial tire. This is a great benefit because it then becomes possible to better address front tire grip when the rear of the car can be optimized closer to the tire’s potential.

VERTICAL DEFLECTION DATA

CONTINENTAL EC-DR 20220-225/45R15

@ 75-80°F



CONTINENTAL EC-DR 20240-245/40R17

@ 75-80°F

