



FERODO IS A REGISTERED TRADEMARK OF THE FEDERAL MOGUL FRICTION PRODUCTS GROUP

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BRAKE PAD & ROTOR BED-IN PROCEDURES

Racing is serious business. Virtually everyone involved with racing spends tremendous time, energy and money in the pursuit of checkered flag. So assuming you want the best from your brakes, please take the time to read and follow these simple procedures:

For best results, prepare the disc rotors by using a Rotor Hone (BT-RH10.0) or glass beading the brake swept area. This is particularly important if you are switching from sintered metal pad. This copper/bronze material leaves a deposition layer burnished into the operating surface of the rotor that can be a barrier to allowing a carbon/ceramic [organic] pad from bedding-in properly. Maintain your rotors by rotor honing or glass-beading every time you replace your brake pads.

On liquid cleaners; use only Acetone or denatured alcohol on a clean shop towel to wipe down the rotors. We **do not** recommend using an aerosol brake cleaner as many leave a residue that promotes brake pad glazing. Take this opportunity to check for fluid leaks. For best performance, we recommend flushing your brake fluid every 2-3 events with a premium fluid (more frequently in humid climates).

Please note: DOT-5 Silicone brake fluid is not recommended.

Yes, one can potentially cause a problem by being too easy on new brakes for an extended period.

There are two main issues involved with proper brake pad bed-in, which applies to new rotors too since new pads should **always** be installed with new brake rotors:

- 1. Creating a proper mating surface between the operating/contact area of the rotor and the brake pad friction face. Ideally, this will minimally constitute a +80% contact area. Bear in mind, both the pad and rotor surfaces are ground. Microscopically, this means the initial contact area is effectively hills and valleys with only the peaks touching.
- 2. Transfer Film Layer. Oftentimes referred to as the deposition layer, it is critical for the new pads to impart an even and homogenous burnished layer around the operating area of the rotor. DTV (disc thickness variations) of more than .0006" can cause problems and manifest themselves as distracting vibrations or brake judders.

It's actually more straightforward to explain this process from the point of view of the racer – essentially, someone trying to go through the bed-in process as quickly and efficiently as possible. It is important not to use the new brake pads heavily until the rider *FEELS* them coming in at the lever (quite literally, one will *feel* this). As the new brake pads come in, only then should the rider up the pace and increase braking force.

IMPORTANT NOTE: <u>NEVER</u> ride around the track dragging the brakes in an effort to bed them in more rapidly. This can quickly lead to over-heating and glazing resulting in very poor performance (simply put; don't do it, it's nearly impossible to gauge how much heat you're dumping into the pads during the critical bed-in process). The correct bed-in procedure entails frequent application of the brake and progressively increasing pressure as you feel the brakes begin to come in.

Important to get the organic pads bloody hot right before coming in from this bed-in session. Team members will likely detect the telltale smell of phenolic and possibly even smoke coming out of the calipers (olfactory reference here is directed toward the Carbon/organic race pads). Although sintered metal pads are a different animal, it's still important to get them good and hot prior to coming in from the initial outing with new pads to make sure you've got a homogenous transfer film layer in place. This should not constitute an extended period). Preferred is a close monitoring of the performance difference detected at the brake lever through repeated application of the brakes. This whole process should not take long, 4-5 laps on the track, or most likely less than 20 miles on the street (often much less). Again, the concept here is to create a smooth, even and complete deposition of friction film on operating surface of the rotors.

Lastly, allow organic brake pads to cool back to ambient. Your pads should now be fully bed-in. The next outing should only take a couple applications of the brakes to bring them up to temp and ready for battle.

Hope this helps.

Jeff Gehrs BrakeTech USA



SAFETY INSTRUCTIONS

Although all modern Ferodo Ltd friction formulations are non-asbestos, it is prudent and recommended to take adequate precautions while working with any manufacturers friction materials. Please observe the following:

- 1. Operate in a well ventilated area and avoid creating dust.
- 2. Machining (not required in proper application) should only be carried out using approved dust extraction equipment.
- 3. When fitting brake components, use appropriate dust extraction equipment or a damp cloth to remove dust.
- 4. Do not use an air hose or brush to remove dust.
- 5. Dampen dust, place it in a properly closed receptacle and dispose of safely.

