TECH FILES

Bulletin

DISC PAD BREAK-IN/BEDDING-IN/BURNISHING

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Procedure:

Break-in, bedding-in and burnishing are different terms for the same thing. These terms refer to the process of conditioning new disc pads and rotors. The following steps are recommended to achieve optimum performance and life out of your new pads.

- make 15 stops from 55-65 km/h (35-40 mi/h) down to 8 km/h (5 mi/h)
- Allow the brakes to cool for 30 seconds between stops
- Try to avoid panic stops or hard braking for approximately 320 km (200 miles)

Benefits:

The benefits of proper break-in are:

- Improves performance
- Reduce noise and vibration
- Eliminates glazing which causes noise and reduces effectiveness
- Eliminates warped (unevenly worn) rotors

Just like when your vehicle was new, freshly installed brake components that will be rubbing against each other need to be mated together. Some friction manufactures claim their friction does not require break-in because they fully cure or post cure their materials. All disc pads should go through the break-in process in order for the rotor and pad surfaces to mate with each other. Therefore, proper break-in is important in order to maximize the performance of your brakes just like the proper break-in of your engine is important when the vehicle is new.

Technical:

There are basically two types of friction materials, abrasive and adhesive. Abrasive friction materials “scrub” the rotor surface with every rotation. Abrasive materials need brake-in so there is full smooth contact between the disc pads and the rotor.

Adhesive materials actually transfer friction material from the disc pad to the rotor surface. This transfer becomes a continuous chemical and mechanical process. The friction and rotor actually rub against this third layer of material, tribology. Proper break-in ensures this transfer is evenly distributed which reduces noise and vibration.

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