

## Break in, Burnish and Bed in!

3 different terms, all refer to the conditioning of new brake pads and rotors.

The 2 main reasons for following a proper break in procedure are:

- a) Transferring brake pad material evenly onto your brake rotors.
- b) It also smooths the roughness and unevenness of the mating surfaces.

Adhesion vs. Abrasion? Why is this process important? The brake pad breaking in procedure works two ways depending on the type of friction material.

If the pads are made of Ceramic material, then they use Adhesion when braking. The breaking in process transfers a thin film of brake friction material evenly onto the rotor surface. Therefore, adherent brakes work by the brake pad literally rubbing against a thin film of the same material, thus stopping the vehicle.

If the pads are made of Semi Metallic material, they use Abrasion when braking. The breaking in process acts like a polishing procedure to mate the pad to the rotor. Semi-metallic brake pads have a high metal content, therefore rubbing metal against metal will wear the surfaces into one another.

Benefits of a proper break in are:

- Reduced noise and vibration
- Reduced chance of glazing which effects performance
- Reduced chance of thickness variation, which causes vibration and judder

**Optimal break in procedure:**

- **Make 15 stops from 55km/h(35mph) down to 10 km/h(5mph) with light to moderate pedal pressure**
- **Allow the brakes to cool for 30 seconds between stops**
- **Try to avoid panic stops or hard braking for approximately 500km(300 miles)**

It is critical to follow cool down procedures to avoid damaging the brake pads and/or rotors while ensuring maximum braking performance, safety, and comfort.