

# Focus on... brake discs.

*Maintaining vehicle braking systems is one of the most critical jobs a repairer undertakes. You owe it to your customers to fully understand the impact parts selection can have on their safety and the safety of other road users.*

Under pressure to be competitive, it's understandable that repairers are cost-conscious and always looking to find the best parts prices. But would you knowingly fit a brake disc that offered half the service life of a Volkswagen original brake disc? Or one that was prone to serious premature cracking?

Unfortunately, that's a risk you face when replacing Volkswagen Original Parts® with some alternative parts available in the UK and wider European aftermarket. Not for the first time, independent tests have revealed worrying shortcomings in non-original parts that are being marketed for Volkswagen applications.



## What the tests revealed



Figure 1. The 'other brand' brake disc in the second series of tests after 438 braking cycles. The disc has completely cracked.



Figures 2 and 3. A Volkswagen original brake disc in the last series of tests after 440 braking cycles. Only light cracking is evident.

### Crack resistance of brake discs

Comparison of average figures from 364 braking cycles with the 'other brand' brake disc and 792 braking cycles with the Volkswagen original brake disc showed:

- The service life of the Volkswagen original brake disc is more than twice that of its non-original counterpart.
- Serious cracking in the non-original disc.

### Wear resistance of brake pads/linings

Wear from each braking cycle was calculated by measuring the weight and thickness of the tested brake pads/linings. These tests showed:

- The service life of the Volkswagen original pad/lining is three times that of its non-original counterpart.

Even the service life of the Volkswagen original brake pads/linings is *three times* that of the 'other brand' brake pads/linings.

**Volkswagen  
Original  
Parts®**

#### Original Fact.

On braking, the brake pads/linings are pressed against the brake disc at a pressure equivalent to a weight of up to 1000kg. Volkswagen original brake pads/linings do not deform or break under such pressure.

**In every series of tests, the 'other brand' brake discs cracked much earlier than the Volkswagen original brake discs. Overall, the Volkswagen disc proved to have more than twice the service life of its non-original counterpart.**

# About the tests

## The tests carried out

Tested in accordance with vehicle inspectorate regulation PV 29954 on a vibrating mass test bed to determine:

- Thermal deformation of brake discs.
- Thermal mechanical overload of brake discs.
- Thermal crack resistance of brake discs.
- Wear of brake pads and linings.

## The parts tested

1. Volkswagen original brake disc, 256 x 22mm, part number 1J0 615 301 D.
2. 'Equivalent' brake disc from another aftermarket brand, which describes itself as "one of the leading European manufacturers of brake components".
3. Volkswagen original brake pads/linings, part number 1J0 698 151 J.



4. 'Equivalent' brake pads/linings from the other aftermarket brand.

## The test institute

TÜV NORD Mobilität, the institute for vehicle technology and mobility, Essen, Germany. Test period 17 May 2005 to 6 July 2005.