Brake pads - use related damage

Brake pads are subjected to extreme conditions during ordinary service. Mintex details some types of physical damage that can be seen on brake pads, possible causes and what types of damage are acceptable.

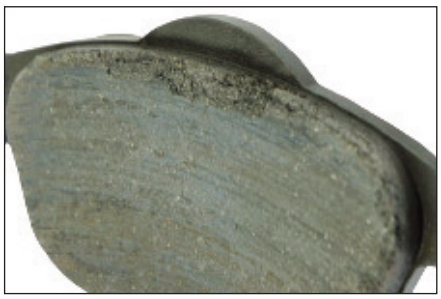
Surface cracks on friction material

Surface cracks can be ignored; they do not pose a safety risk. Even in the case of grooved brake pads, there is no disadvantage regarding pad stability.

Pad deterioration from temperature or load

Destruction of the friction material by mechanical and thermal overload in some places. This is caused by use of new brake pads on extremely scored or worn brake discs. This requires replacement.

Edge break-offs

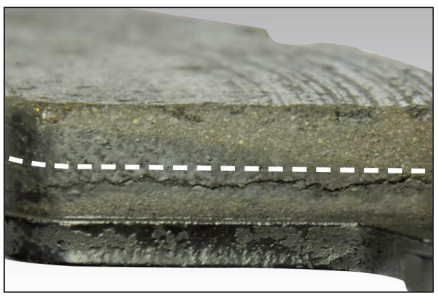


Some friction material break-offs can be ignored, as they do not pose a safety risk. They are caused by a thermal or mechanical stress.

Break-offs above a maximum of 10% of the total pad surface area outside the excluded area require replacement.

Break-offs are only permissible outside of the area marked in the lower picture.

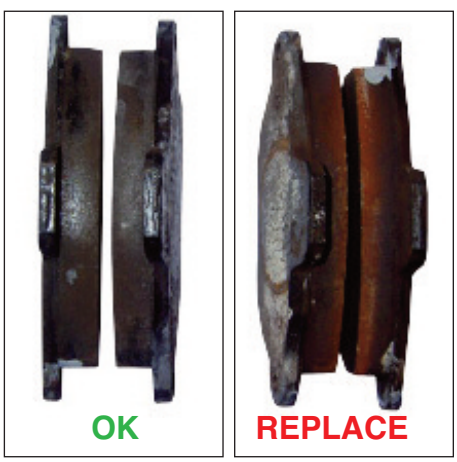
Delamination/Edge deterioration



Cracks or deteriorations in the area where the friction material is connected to the backing plate are not permissible. This is the area below the white dashed line in the upper picture

This pad should be replaced, as the crack will continue through the friction material and it will separate from the backing plate

High thermal stress on one side of a pad set



Brake pads can be subjected to extremely high temperatures when there is inadequate clearance between the pads and the caliper.

This is caused by a sticking/binding brake caliper or lack of lubrication on the caliper mounting.

Faulty contact pattern

This type of wear is caused by a severly worn or incorrect brake disc, a brake defect or contamination, or by insufficient brake loading. It might also be caused by a fitting or production fault.
The pad shown has an inadequate contact pattern and should be replaced.