

NORMAL APPEARANCE



Appearance

- Normal Use
- Recommend periodic maintenance

METAL RESIDUE



Appearance

- Metal residue on friction surface

Cause

- Water leakage, "quenching" of the rotor causes rotor fragments to break away, transferring them to the friction material
- Particularly noticeable if heavy braking on poorly bedded rotors

Effect

- Has no detrimental effect on braking performance
- May cause rotor damage or brake squeal

Solution

- In extreme instances, replace rotors and pads

WORN OUT PADS



Appearance

- Friction material completely worn out

Cause

- No periodic control of pad wear

Effect

- Vehicle may pull to one side
- Damage to rotor
- High squeal and noise

Solution

- Replace pads

CRACKED PADS



Appearance

- Small cracks in center of pad

Cause

- Stress cracks caused by pads flexing
- Pads not free to slide in caliper

Effect

- Piston bends in back plate

Solution

- Lubricate caliper slides and guide pins
- Replace Pads

ASHING



Appearance

- Partially charred friction material (whitish outer edges)

Cause

- Prolonged excessive pad temperature due to intensive use or dragging

Effect

- Reduction in initial braking efficiency
- Excessive material deterioration
- Material becomes brittle, chips and cracks
- Excessive abnormal wear

Solution

- Providing the damage is not excessive, pads can be used and will be effective under normal use

SURFACE CONTAMINATION



Appearance

- Friction material contaminated with oil, grease or brake fluid

Cause

- Spillage during maintenance

Effect

- Vehicle may pull to one side
- Reduction in braking performance

Solution

- Replace pads

UNEVEN WEAR WITHIN A SET



Appearance

- One pad within caliper set excessively worn

Cause

- Caliper guide pins / piston sticking

Effect

- Brakes pull to one side
- Uneven, rapid pad wear

Solution

- Replace pads and service caliper
- Replace with new calipers with pads

GLAZING



Appearance

- Pad friction surface "glazed"

Cause

- High intermittent pad temperature for short durations

Effect

- Temporary reduction in braking performance

Solution

- Can be remedied by "normal" use

TAPERED PADS



Appearance

- Uneven wear, tapered pads

Cause

- Distorted caliper
- Caliper slides sticking
- Piston sticking
- Excessive caliper clearance

Effect

- Premature pad wear
- Uneven braking pressure
- Noise and squeal

Solution

- Replace pads
- Service or replace calipers
- Replace with new calipers with pads

UNEVEN WEAR



Appearance

- Uneven wear on pad surface

Cause

- Irregularly worn brake disc (wear lip)

Effect

- Squeal and brake pedal pulsation
- Premature pad wear

Solution

- Replace rotors and pads

BACKPLATE DAMAGE



Appearance

- Damaged backplate

Cause

- Incorrect assembly
- Excessive force used during installation

Effect

- Reduced braking efficiency, irregular wear, noise and judder
- In extreme instances, products will not fit in the caliper

Solution

- Replace pads