

# P204

## ADVANCED FRICTION PAPER



### Material Description

**P204** has an enhanced structure designed to provide superior energy capability, good engagement characteristic, low wear and long service life.

- Low ratio of static to dynamic coefficient of friction for enhanced engagement characteristics
- Smooth engagement
- Excellent energy capability
- Good wear resistance

### Typical Applications

- Wheel brakes
- Transmissions
- Power shift and power take off transmissions

### Mating Material

- Surface finish <math> < 0.5\mu\text{m Ra}</math> ( $20\mu''$ )
- Steel
- Cast steel
- Grey cast iron

### Friction Coefficient (wet)

- Static: 0.13 - 0.16
- Dynamic: 0.11 - 0.14

### Recommended Load

- Max dynamic pressure: 3.2 N/mm<sup>2</sup> (464 Lbf/in<sup>2</sup>)
- Max rubbing speed: 45 m/s (148 Ft/sec)
- Max specific power: 4.0 W/mm<sup>2</sup> (3.4 HP/in<sup>2</sup>)



Microstructure of P204 50X

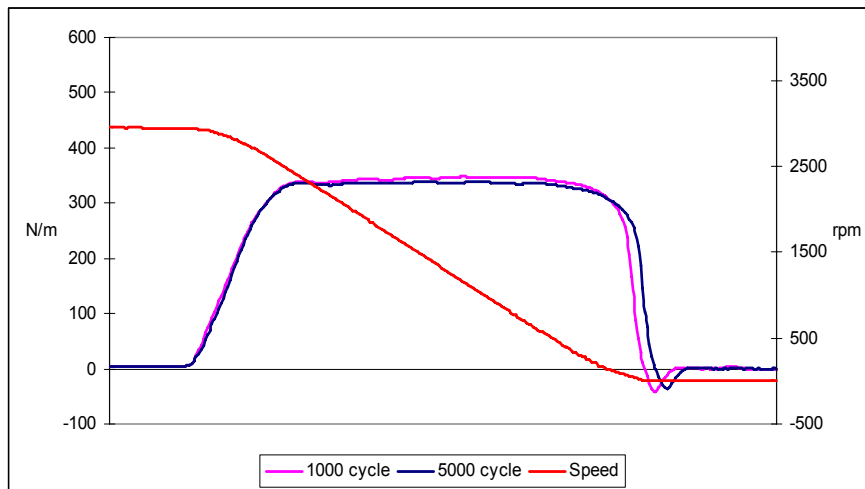
### Oil Grooving

- Multi-pass tangential groove patterns in variety of configurations
- Grooves can either be pressed or machined

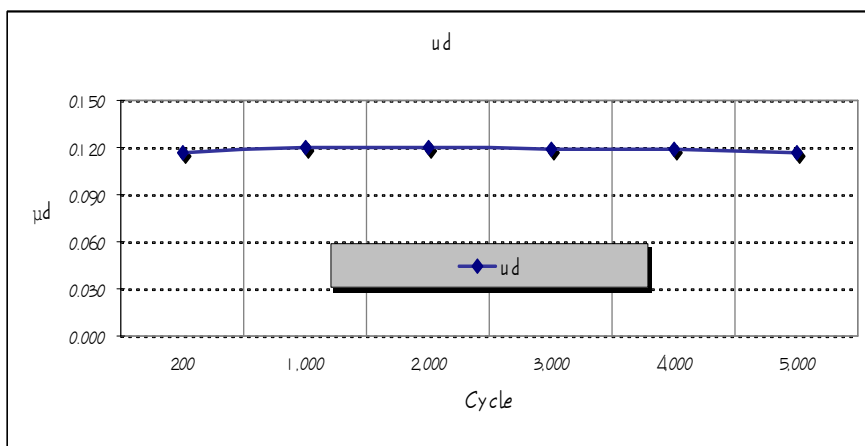
### Dimensions

- Friction thickness: 1.5 mm (0.060") max  
0.40 mm (0.016") min
- Friction diameter: 1,000 mm (39") max  
50 mm (2") min

The above data is taken from specific test parameters therefore results can vary in different application conditions



**TORQUE TRACE**



**CHANGE OF DYNAMIC COEFFICIENT OF FRICTION**

Total cycles	5,000 cycles
Inertia	0.04 kgf·m·sec <sup>2</sup>
Dynamic rpm	2940
Friction facing dimensions	Ø133.5mm × Ø99.0mm
Friction surfaces	4
Unit energy	0.74J/
Unit pressure	2.0 Mpa
Oil type	Tractor oil
Oil temperature	80°C(±5°C)
Arrangement	pDpDp

**TEST CONDITION**