

# P501

FRICION PAPER

## Material Description

**P501** is a non-asbestos cellulose fibre friction material reinforced with a high volume of graphite. This is a high strength material providing a very stable coefficient of friction and good thermal conductivity.

- High heat stability
- Smooth engagement characteristics
- Excellent energy capability
- Good wear resistance

## Typical Applications

- Powershift Transmissions
- Power take-off clutches
- Forward-reverse clutches

## Average Friction Coefficient (wet)

- Static: 0.12 - 0.16
- Dynamic: 0.11 - 0.14

## Mating Material

- Surface finish < 0.5µm Ra (20µ")
- Steel
- Cast steel
- Grey cast iron

## Recommended Max Load

- Dynamic pressure: 3.5 N/mm<sup>2</sup> (508 Lbf/in<sup>2</sup>)
- Rubbing speed: 45 m/s (147 Ft/sec)
- Specific power: 4.0 W/mm<sup>2</sup> (3.4 HP/in<sup>2</sup>)

## Oil Grooving

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

## Dimensions

- Friction thickness: Max 1.2 mm (0.047") to Min 0.50 mm (0.016")
- Friction diameter: Max 1,000 mm (39.37")

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

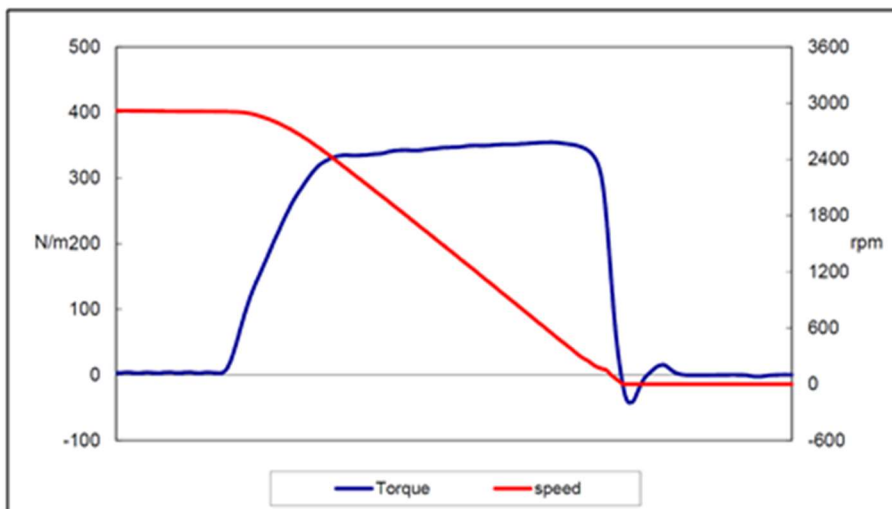
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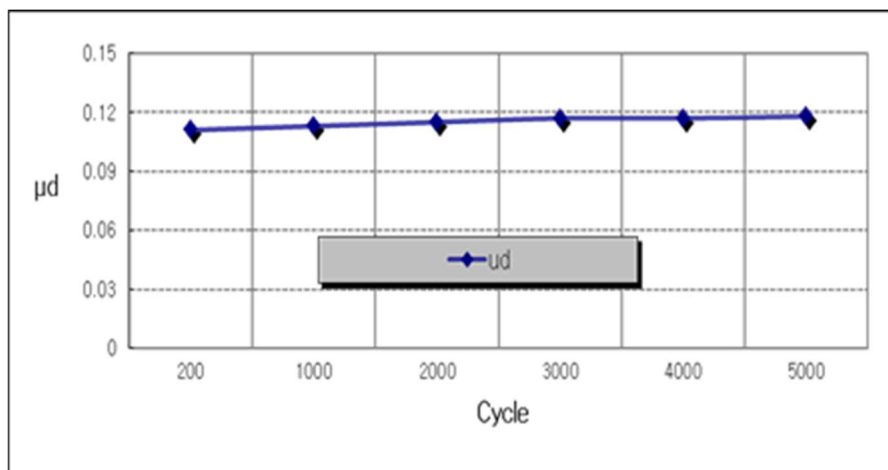
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DATA SHEET



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/mm <sup>2</sup>
Unit pressure	2.0 Mpa
Oil type	Tractor oil
Oil temperature	80°C(±5°C)
Arrangement	pDpDp

Test Conditions