

# P309C

CARBON FRICTION PAPER

## Material Description

**P309C** has a structure of highly conductive fibres designed to provide outstanding thermal capability, good wear resistance and  $\mu$ -V characteristics. The use of porous carbonaceous materials improves the stability of the torque curve over a wide range of temperatures and pressures.

- Low static to dynamic coefficient of friction for enhanced engagement characteristics
- Anti-noise and vibration
- Excellent energy capability
- Good wear resistance

## Typical Applications

- Transmission clutch
- LSD
- Wheel brakes

## Average Friction Coefficient (wet)

- Static: 0.09 - 0.12
- Dynamic: 0.12 - 0.13

## Mating Material

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

## Recommended Max Load

- Dynamic pressure:  $4.5 \text{ N/mm}^2$  ( $653 \text{ Lbf/in}^2$ )
- Rubbing speed:  $45 \text{ m/s}$  ( $147 \text{ Ft/sec}$ )
- Specific power:  $4.0 \text{ W/mm}^2$  ( $3.4 \text{ HP/in}^2$ )

## Oil Grooving

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

## Dimensions

- Friction thickness: Max  $1.50\text{mm}$  ( $0.05''$ ) to Min  $0.40\text{mm}$  ( $0.02''$ )
- Friction diameter: Max  $1,200 \text{ mm}$  ( $47''$ )

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

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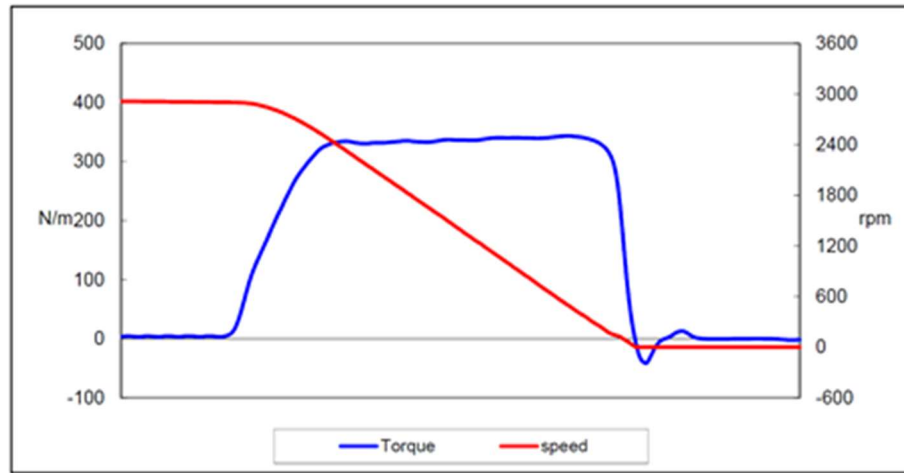




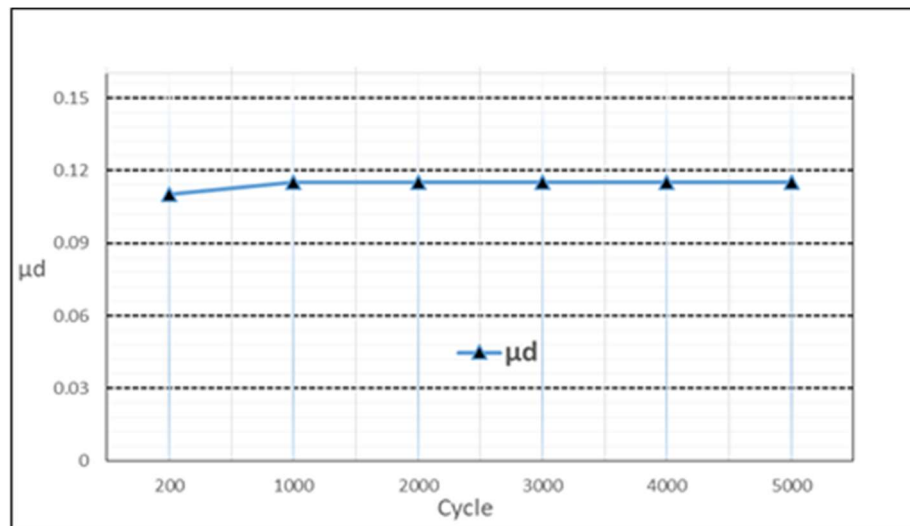
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DATA SHEET



**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**