

C7002

CARBON FRICTION MATERIAL

Material Description

C7002 is an advanced carbon friction material based on natural and synthetic fibres and fillers strengthened by a unique resin binder.

It provides superior heat resistance and anti-wear performance under severe power conditions and delivers a positive μV characteristic at various pressures and temperatures.

- High energy capability
- Close to 1:1 relationship between static to dynamic coefficient of friction giving smooth engagement & superior NVH performance
- Stable coefficient of friction over speed and pressure
- Superior wear resistance
- Good oil compatibility

Typical Applications

- Transmission Clutch
- LSD
- Wheel Brakes

Average Friction Coefficient (wet)

- Static: 0.09 - 0.14
- Dynamic: 0.10 - 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: 6 N/mm^2 (870 Lbf/in^2)
- Rubbing speed: 50 m/s (164 Ft/sec)
- Specific power: 4.4 W/mm^2 (3.74 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 1.50mm ($0.06''$) to Min 0.50 mm ($0.02''$)
- Friction diameter: Max $1,000\text{mm}$ ($39.37''$)

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

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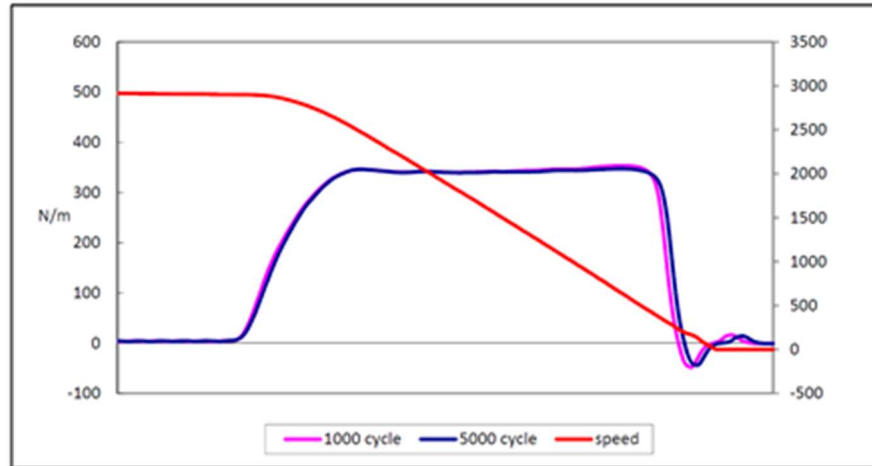
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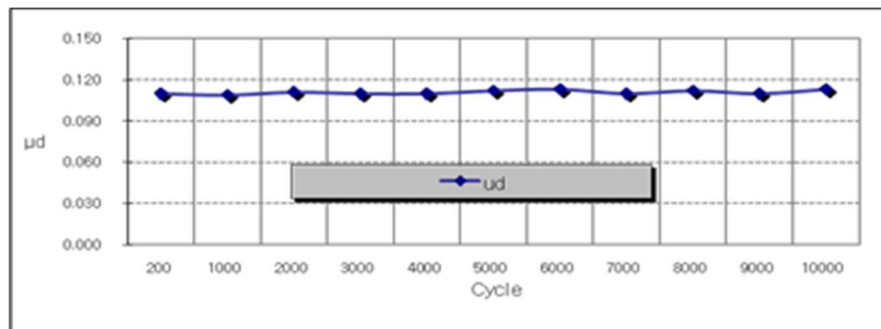


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Torque Trace



Change of Dynamic Coefficient of Friction

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

Test Conditions