

Material Description

C7000™ has a highly porous structure of carbon fibres and granulated particles that provides excellent heat resistance and superior heat dissipation.

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

Typical Applications

- High load differentials, clutches & brakes

Average Friction Coefficient (wet)

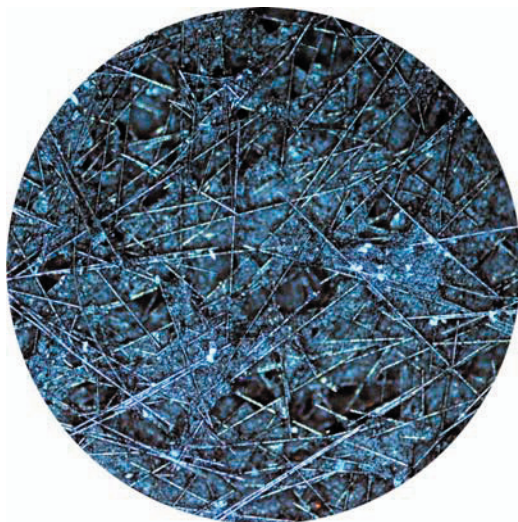
- Static: 0.105 - 0.115
- Dynamic: 0.100 - 0.110

Mating Material

- Steel
- Surface finish < 0.5μm Ra (20μin CLA)
- No special hardness requirements

Recommended Max Load

- Dynamic pressure: 6 N/mm² (870 psi)
- Rubbing speed: 17 m/s (56 Ft/sec)
- Specific power: 4 W/mm² (3.4 HP/in²)



Micro Structure of C7000 x 50

Oil Grooving

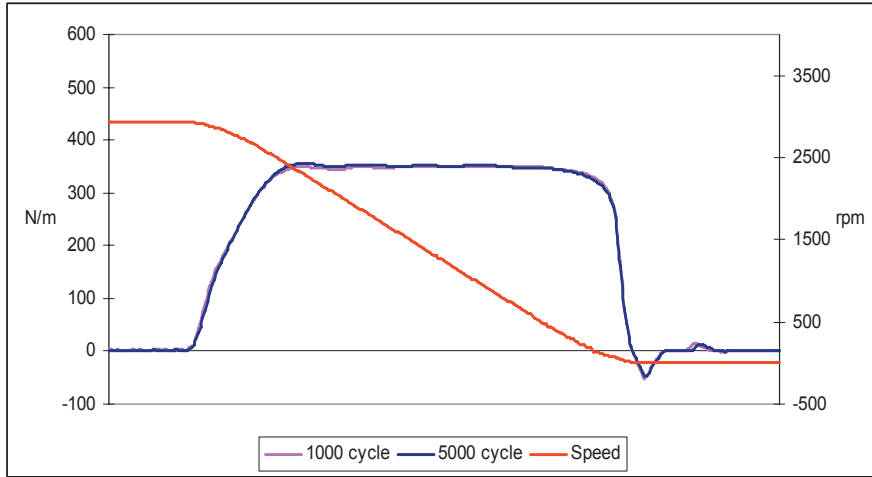
- Multi-pass tangential groove patterns in variety of configurations
- Grooves can either be pressed or machined

Dimensions

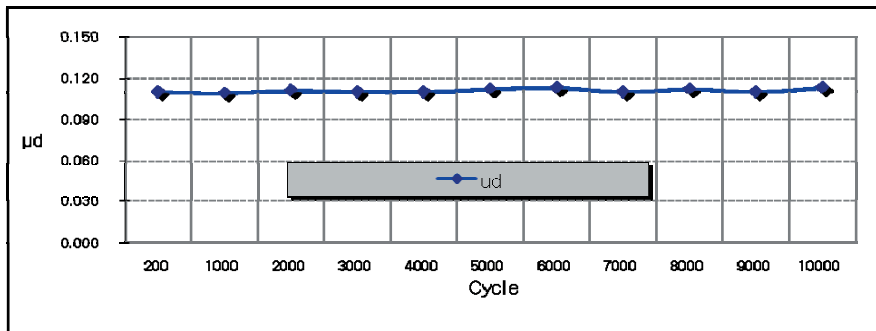
- Friction thickness: 0.70 mm (0.028")
- Friction diameter:
Unlimited diameter in segment form
Non-segmented: 200 mm (8")

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

C7000 - 2 - 300909



TORQUE TRACE



CHANGE OF DYNAMIC COEFFICIENT OF FRICTION

| | |
|----------------------------|-----------------------------|
| Total cycles | 10,000 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/□ |
| Unit pressure | 2.0 Mpa |
| Oil type | TO-4 |
| Oil temperature | 90°C(±5°C) |
| Arrangement | pDpDp |

TEST CONDITION