μtech

C5050

WOVEN CARBON FRICTION MATERIAL

DATA SHEET

Material Description

C5050™ has carbon fibre rovings that are entwined into a plain weave pattern and reinforced with a unique resin binder. Carbon fibres provide excellent heat resistance and superior heat dissipation.

- Stable coefficient of friction over speed and pressure
- Close relationship between static to dynamic coefficient of friction giving smooth engagement & quiet operation
- Excellent energy capability
- Good wear resistance

Typical Applications

- High load differentials & clutches

Average Friction Coefficient (wet)

- Static: 0.095 - 0.105
- Dynamic: 0.090 - 0.105

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 C5050 x 50

Oil Grooving

- Segmented

Dimensions

- Friction thickness: 0.54 mm (0.021")
- Friction diameter:
  Non-segmented: 200 mm (8")

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

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FMC

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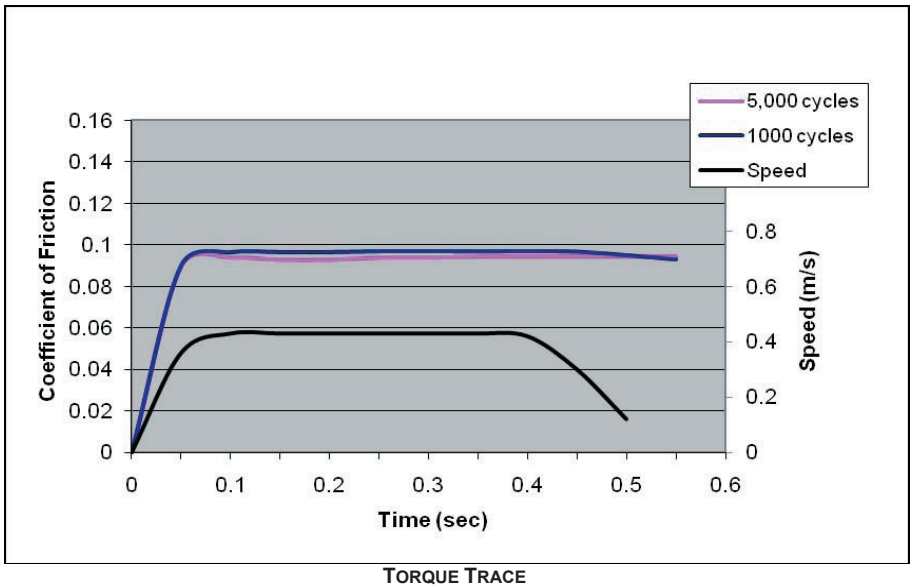
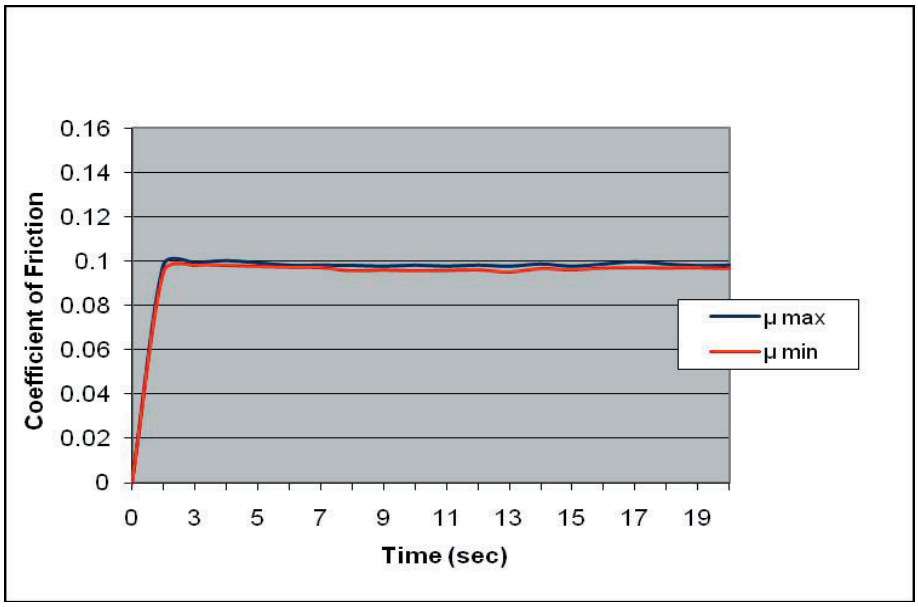


TORQUE TRACE

Unit pressure	5.0 MPa
Friction facing dimensions	Ø133.5mm × Ø99.0mm
Spec. Energy	0.74J/□
Slip time	5.00 s
Oil type	SAE 80W-90
Oil Temperature	80°C +/- 5°C
Rubbing speed	0.5 m/s

TEST CONDITION



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