

Improving Toshiba TPH Performance

New protective layer characteristic

Reference value

	Current Material	New Material
Material	Si3N4-SiO2 System	Silicon Carbide System
Hard Knoop	2290 Hk	3500 Hk
Hard Vickers	1100 Hv	1550 Hv
Friction coefficient with almite ball	0.70 – 0.80	0.40
Inter Stress	1.5 e-03 N/mm	3.0 e-03 N/mm
Surface Resistance	1.0 e+12 ohm	1.0 e+7 ohm

The new material has longer abrasive life as well as electric conductivity. As per Toshiba tentative rapid test, new protective layer material wear rate was a quarter times than current.

