Seal Material - Silicon Carbide

Technical Features :

Silicon carbide is the excellent material among the secondary frictional material. The frictional factor of the combination of silicon carbide and carbon – graphite is the least.

So silicon carbide is widely applied to components of high – temperature heat engine , abrasion resistant parts of pump valve , and the industrial fields of petroleum , chemical , machinery - building , cosmonautics , printing , dyeing , foodstuff , pharmaceutical and auto industry , etc.

Reaction Silicon Carbide bonded Main Performance Index

SIC •••%••• Purity of SIC •%••	•90
•• (g/cm ^{3}) Density (g/cm ^{3})	3.00 ~3.05
•• (HB) Hardness (HB)	100 ~ 120
•••• (Kg/ mm ^{2}) Elastic Modulus (Kg/ mm ^{2})	42 x 10 ^{3}
•••• (Kg/ mm ^{2}) Tensile strength (Kg/ mm ^{2})	28
•••• (Mpa) Bend strength (Mpa)	338
•••• (Mpa) Compressive strength (Mpa)	2000
••••• (cal/cm.s.••) Thermal Conductivity (cal/cm.s.••)	0.3
••••• (1•/••)• Coefficient of Heat Expansion (1•/••)	4.3 x 10^{-6}
•••••••••••• •••••••••••• Heat Resistance (in the atmosphere)	1300••
••••• (cal•/ cm . s) Thermal Impact Coeffcient (cal / cm . s)	46.5
••••• (%) •• Free – si Valve (%)	≤ 10