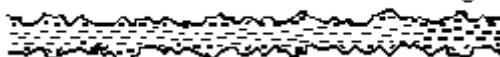




FRICTION MATERIALS

Graphite is the predominant materials used as solid lubricant. In the form of dry powder these materials are effective lubricant additives due to their lamellar structure. The lamellas orient parallel to the surface in the direction of motion.

Particle orientation after initial sliding



Even between highly loaded stationary surfaces the lamellar structure is able to prevent contact. In the direction of motion the lamellas easily shear over each other resulting in a low friction. Superlubricity has been observed in graphite: it is the substantial decrease of friction between two sliding objects, approaching zero levels. A very small amount of frictional energy would still be dissipated. Lubricants to overcome friction need not always be thin, turbulent fluids or powdery solids such as graphite; acoustic lubrication actually uses sound as a lubricant.

GRADE	Carbon content min (%)	Oxidation resistance	Bulk Density (g/100cc)	Particle size distribution
3I-5-03	94.0	37.70	0.33	+240# : Nil
C-5-03	95.0	64.80	0.31	+200# : Nil
B-1-2	98.0	99.40	0.32-0.33	-100 +200# : 2%
B-1-3	99.0		0.22-0.24	+300 # : Nil +400# : 5% max.
B-1-4	95.0	72.30	0.66	-100# +250
C-0-6	85.0	6.45	0.62	+50# : Nil
A-0-3	96.0		0.33	+200#: 5% max

And as per customer's specific requirements.

