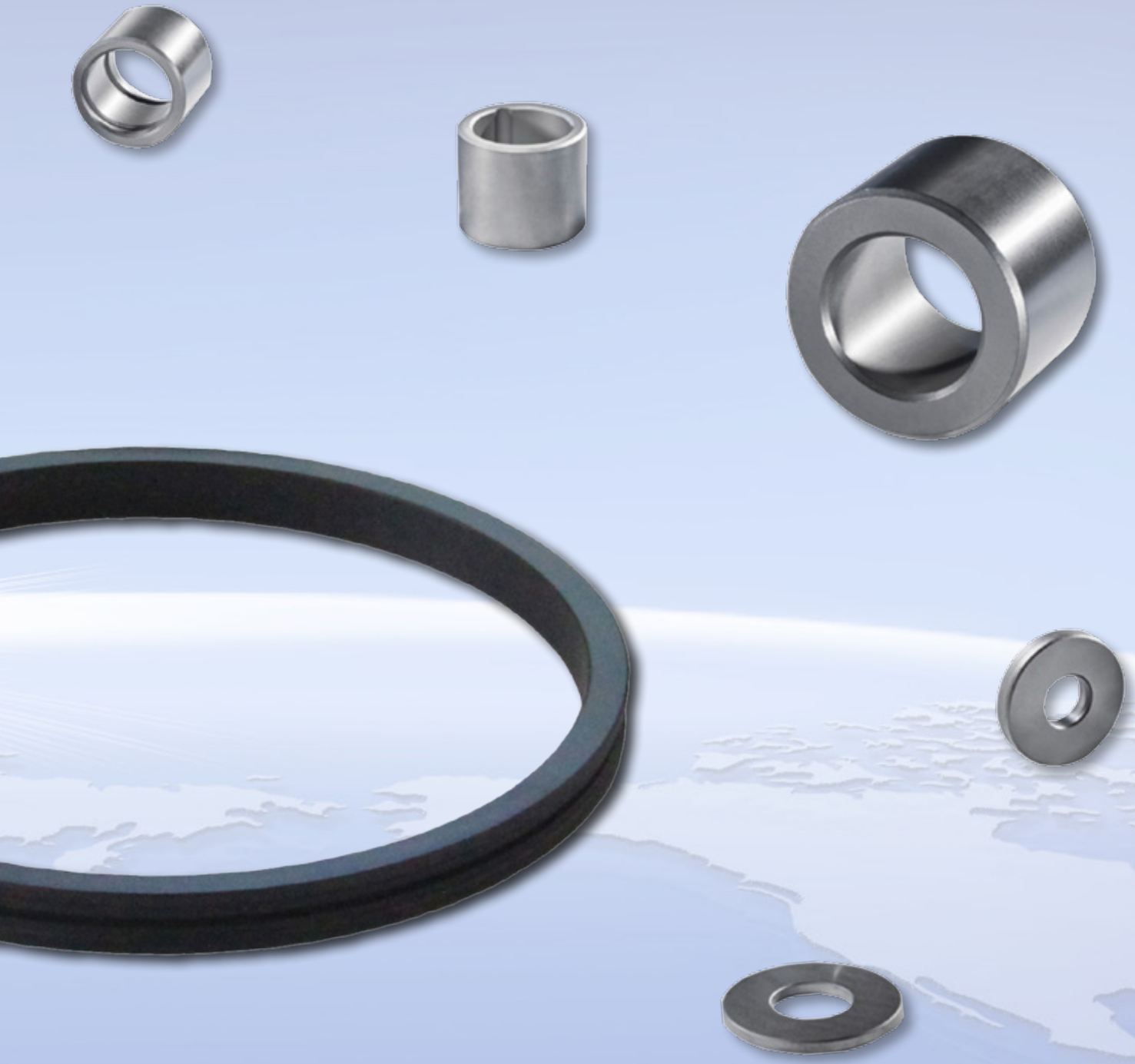
Material Data Sheet

CARBON GRAPHITE



NINGBO DPM FLUID TECHNOLOGY CO., LTD

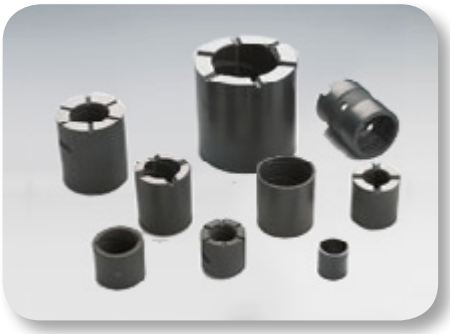
A SEALS AND BEARINGS ENGINEERING COMPANY

Material Description:

For tribological application, because Carbon Graphite has excellent self-lubricating ability, it is one of the most popular materials. And after the impregnation with other materials, its porous feature is changed so that it can be used as the tribological face of mechanical seal. Usually it is applied as the soft material to mate with hard material such as Tunsten Carbide or Silicon Carbide, which is able to handle wide range of applications, includes wet, dry, high pressure, and high speed. Radial bearings, thrust bearings, shafts, vanes made of Carbon Graphite, are also the common application of this particular material.

It has the advantage of:

1. Good chemical resistance.
2. Excellent self-lubricant ability.
3. Good thermo conductive ability.
4. Low thermo expansion rate.
5. Outstanding thermo shock resistance.
6. Easily machined to varies of shapes.



Applied with SGL, TOYO TANSO, Morgan, and Chinese domestic Carbon, our finished Carbon Graphite material mainly includes:

1. Resin-Impregnated Carbon Graphite:

Usually Phenolic Resin, Furan Resin and sometimes Epoxy Resin, these 3 kinds of resin are applied as the impregnation agent in order to improve the seal ability and decrease the porosity of Carbon Graphite. This material is economic, and it is applied on low temperature and low strength conditions. Their anti-corrosion ability depends on their different impregnated materials.

2. Metal-Impregnated Carbon Graphite:

Antimony, Cupper, as well as Babbitt metal are usually applied as the impregnation agent with the same purpose as resins. The difference is, with metal-impregnation, the material is able to handle higher temperature and higher pressure applications.

www.dpm-seal.com petercui@dpmfluid.com

Chinese Domestic Carbon Graphite:

DPM Code	Impregnation	Thermo expansion rate	Density	Porosity	Hardness	Bending strength	Compressive strength
-	-	10^{-6}/K	g/cm^3	%	HS	MPa	MPa
M125F	Phenolic	5.0	1.75	3.0	85	70	220
M126F	Phenolic	5.0	1.78	3.0	85	75	200
M106F	Phenolic	5.0	1.75	3.0	85	60	200
M125K	Furan	5.5	1.75	2.5	85	75	200
M126K	Furan	5.5	1.78	2.5	85	75	220
M106K	Furan	5.0	1.75	2.5	90	67	200
M125D	Antimony	7.0	2.20	3.0	80	65	180
M106D	Antimony	7.0	2.30	3.0	80	70	200
M125P	Copper	6.2	2.60	2.0	75	75	250

SGL and TOYO TANSO Carbon Graphite:

Code	Material	Impregnation	Density	Porosity	Hardness	Bending strength	Compressive strength
-	-	-	g/cm^3	%	HS	MPa	MPa
KC-673	KC-67	Resin	1.87	-	87	78	245
KC-6709	KC-67	Antimony	2.30	-	88	90	300
EK2200	EK20	Resin	1.82	2.5	110(HR)	75	200
EK3205	EK20	Antimony	2.25	2.5	115(HR)	95	260

NINGBO DPM FLUID TECHNOLOGY CO. LTD

Tel: +86-574-88370866

Cell&Whatapp&Skype: +86 139 6784 8363

E-mail: petercui@dpmfluid.com sales@dpmfluid.com

Website: www.dpm-seal.com