

KYLIN

Mechanical Seal Faces & Shaft Bushings Catalogue (Cer/SiC/SSiC/TC/Car)

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G60 Seat



MG1 Rotary Ring



Type 2100 Seat



SS316 Seal Ring



Shrink-fitted Seal Ring



BT-AR Seat



G6 Seat



G4 Seat



Type 502 Seat



Type 10R/10T Seat



Type 155 Rotary Ring



Type 24 Seat



Type 59U Seat



Type 58U Seat



G9 Seat



M3N Rotary Ring



M7N Seat



M7N Rotary Ring



Type 58B Rotary Ring



Type 502 Rotary Ring



Type 21 Rotary Ring



Seal Ring



Shaft Bushing



Shaft Bushing

High Purity Ceramic (99%, 99.5%)



Ceramic seal faces have the property of good sealing, resistant-high-temperature, resistant-corrosion, and resistant-wearing. Ceramic seal faces are widely used in many different industries, including spacecraft, machinery, metallurgy, printing and dyeing, foodstuff, pharmaceutical, auto industry and so on.

AL₂O₃ Ceramic physical property			
Technical Parameter	Unit	99%	99.50%
Content of Al₂O₃	%	99	99.5
Density	g/cm ³	3.88	3.9
Hardness	HRA	88	90
Porosity Rate	%	<0.2	<0.15
Fractural Strength	Mpa	310	350
Coefficient of Heat Expansion	10 ⁻⁶ /K	5.3	5.2
Thermal Conductivity	W/M.K	26.7	26

Reaction Bonded Silicon Carbide (**RBSiC**) and Pressureless Sintered Silicon Carbide (**SSiC**)



Silicon carbide seal faces have the property of excellent resistant-corrosion, high mechanical strength, high thermal conductivity and good self-lubrication. Silicon carbide seal faces are widely used in many different industries, including spacecraft, machinery, metallurgy, printing and dyeing, foodstuff, pharmaceutical, auto industry and so on. When the silicon carbide seal faces are combined with graphite faces, the friction is the smallest, they can be made into mechanical seals which are able to work in highest working requirements.

Silicon Carbide (SiC) physical property						
Technical Parameter	Unit	RBSiC	SSiC	Sic+C	Ssic+C	Qssic+C
Hardness	HS	110	115	105	110	100
Porosity Rate	%	<0.3	<0.2	<0.5	<0.5	<5
Density	g/cm ³	3.00~3.05	>3.10	2.69-2.90	2.70-3.0	2.65
Compressive Strength	MPa	>2200	>2500	>1400	>1600	>800
Fractural Strength	MPa	>350	>380	>150	>160	>100
Coefficient of Heat Expansion	10 ⁻⁶ /°C	4	4.2	3.5	3	2.5
Content of Sic	%	90	98	85	92	90
Free Si	%	10	1	12	/	/
Elastic Modulus	GPa	400	410	350	360	180
Temperature	°C	1300	1400	1300	1400	1400

Tungsten Carbide (TC, WC)



Tungsten carbide is widely used as seal faces with resistant-wearing, high fractural strength, high thermal conductivity, and small heat expansion co-efficient. Tungsten carbide is the best material to resist heat and fracture in all hard face materials.

Tungsten Carbide (TC) physical property							
Technical parameter		Unit	YWN6	YWN8	YG6	YG8	NT60
Composition	WC	%	94	92	94	92	
	Ni	%	6	8			
	CO	%			6	8	
Density		g/cm ³	14.5-14.9	14.4-14.8	14.6-15	14.5-14.9	6.5-6.8
Hardness		HRA	88.5	88	89.5	89	90
Fractural Strength		MPa	1490	1470	1421	1470	1480
Heat Expansion Co-efficient		10 ⁻⁶ /K	5.2	5.3	5	5.1	7.5

Carbon



Carbon has the good property of good resistant-corrosion, high thermal conductivity and lower friction, good self-lubrication, and smaller expansion. They can be made into the seal faces, bearings and so on. It is ideal to choose it as the frictional mating rings.

Carbon physical Property								
Category	Model	Density (g/cm ³)	Fractural Strength (MPa)	Compressive Strength (MPa)	Shaw Hardness (HS)	Porosity (%)	Temperature (°C)	
Carbon-graphite	Hot molded Carbon	M1	> 1.65	65	150	> 70	< 0.2	180
	Sintered Carbon	MJ	> 1.75	60	160	> 85	< 2.5	200
	Impregnated Epoxy Resin(H)	M106H	1.75	65	200	85	< 1	250
		M120H	1.7	60	180	80	< 1	250
	Impregnated Furan Resin(K)	M106K	1.75	67	200	90	< 1	250
		M120K	1.7	62	180	85	< 1	250
	Impregnated Phenol Aldehyde Resin(F)	M106F	1.75	60	200	85	< 1	250
		M120F	1.7	55	180	80	< 1	250
	Antimony Carbon(D)	M106D	2.3	65	220	90	< 1.5	400
		M120D	2.3	60	220	90	< 1.5	400
M254D		2.3	55	210	65	< 1.5	400	