

Material Specification

		PA-2	TC-3	PA-G5	TC-5	PAN	PA-C
Material		WC	WC	WC/TiC	WC/TiC	WC/TiC	ZrO2
		Co	Co/Ni/Cr	Ni/Cr/Mo	Co/Cr/Mo	Co/Cr/Mo	YO2
Density(g/cm³)		15.0	14.4	11.5	7.8	6.5	6.1
Hardness(HV)		1300~1500	1500~1700	≥1680	≥1600	1300~1500	1200
Property		for oil-based inks, magnetic	for all kinds of inks, magnetic	especially for GEL Ink, non magnetic, anti-corrossion	economical ball for all kinds of inks, magnetic	economical ball for OBI ink,magnetic	for all kinds of inks, non-magnetic
Anti-corrossion Feature	Oil-based	○	○○○	○○○	○	○	○
	Water-based	X	○○○	○○○	○	X	○
	GEL	X	○○○	○○○	○	X	○
		○○○ Very Good		○ OK	X Not Suitable		
Surface		FSS	FSS	FSS	FSS	FSS	FSS
		FS	FS	FS	FS	FS	FS
		R	R	R	R	R	R
		RR	RR	RR	RR	RR	RR
		RRR	RRR	RRR	RRR	RRR	RRR
Diameter		1.6	/	1.6	/	/	/
		1.4	1.4	1.4	1.4	/	/
		1.2	1.2	1.2	1.2	/	/
		1.0	1.0	1.0	1.0	1.0	1.0
		0.8	0.8	0.8	0.8	0.8	0.8
		0.7	0.7	0.7	0.7	0.7	0.7
		0.6	0.6	0.6	0.6	/	0.6
		/	0.5	0.5	0.5	/	0.5
		/	0.4	0.4	/	/	0.4
	/	0.3	0.3	/	/	/	
Accuracy	Lot mean	±0.0015mm	±0.0015mm	±0.0015mm	±0.0015mm	±0.0015mm	±0.0015mm
	Internal Difference	< 0.0005mm	< 0.0005mm	< 0.0005mm	< 0.0005mm	< 0.0005mm	< 0.0005mm
	Roundness	0.0005mm	0.0005mm	0.0005mm	0.0005mm	0.0005mm	0.0005mm

Surface Roughness

Prime Alloy is using Swiss Nanosurf scanning system, checking one area Sa instead of only one line Ra

	Ra	Sa
FSS	≤0.005	≤0.005
FS	(0.003, 0.010)	(0.003, 0.010)
R	(0.010, 0.020)	(0.010, 0.020)
RR	(0.020, 0.040)	(0.020, 0.040)
RRR	≥0.030	≥0.030