porite Material Characteristics For Machine Parts

Material code	Category	Chemical characteristics [wt%]								Density	Tensile strength [Mpa]		elongation [%]		Hardness [HR]		Other	General usage	※ Equivalent grade (JIS)	
		Fe	C	Cu	Ni	Mo	Cr		Others	[g/cm^3]	Sintered	Heat treatment	Sintered	Heat treatment	Sintered	Heat treatment	Characteristics		JIS Z2550(1989)	JIS Z2550(2016)
PFA01	Soft magnetic materials	Bal.	—	—	—	—	—	—	≦1	≧6.6	≧150	—	≧3	—	≧30HRF	—	B_{25}:0.8～1T Br:0.8～1 μm:800～1500	Soft magnetic yoke&core, Soft magnetic parts	SMF1015-1020	-F-00-100
PFA03		Bal.	—	—	—	—	—	—	≦1	≧6.8	≧200	—	≧5	—	—	—	B_{25}:1.1～1.3T Br:0.8～1.1 μm:1500～2400			
PFP06		Bal.	—	—	—	—	—	P:0.4～0.7	≦1	≧7.2	≧400	—	≧5	—	≧50HRB	—	—		—	-F-00P05-210
PFB01	For structural parts (middle strength)	Bal.	—	1～3	—	—	—	—	≦1	≧6.2	≧150	≧300	≧1.5	—	≧30HRB	≧45HRA	—	Gear,Sprocket,Timing pulley, Cam,Valve seat Bush, etc.	SMF2020-2030	-F-00C2-175
PFC01		Bal.	0.4～0.8	—	—	—	—	—	≦1	≧6.4	≧200	≧400	≧1	—	≧30HRB	≧45HRA	—		SMF3025-3030	-F-05-170
PFE01-1	For structural parts (～High strength)	Bal.	0.3～1.0	1～3	—	—	—	—	≦1	≧6.4	≧300	≧500	≧1.5	—	≧30HRB	≧45HRA	—		SMF4030	-F-08C2-270
PFF01		Bal.	0.2～0.8	1～2	1～3	0.2～0.7	—	—	≦1	≧6.6	≧350	≧550	≧1	≧0.2	≧50HRB	≧60HRA	—		SMF5030	-FD-05N2C-360
PFF03		Bal.	0.2～0.8	1～2	3～5	0.2～0.7	—	—	≦1	≧6.8	≧400	≧600	≧1	≧0.2	≧50HRB	≧60HRA	—		SMF5040	-FD-08N4C-360
PFR15	High strength material	Bal.	0.2～0.6	1～3	3～5	0.2～0.7	—	—	≦1	≧6.8	≧500	≧700	≧1.2	≧0.2	≧60HRB	≧60HRA	—	Starter pinion,Coupling, Impact clutch, High strength parts, Wear resistant parts		-FD-08N4C-390
PFH01	Sinter-hardened material	Bal.	0.4～1.0	1～3	1～3	0.5～1.5	—	Mn:0.05～0.3	≦1	≧6.6	≧650	—	≧1	—	≧50HRA	—	—	—	—	-FLA-08N1M-C2-590SH
PSS01	Stainless steel	Bal.	≦0.03	—	9～13	—	18～20	Si:≦1.5	≦2	≧6.2	≧200	—	≧1	—	≧30HRB	—	—	mechanical seal, gear,pulley, Corrogion resistant parts	SMS1025-1035	-FL304-210N
PSS02		Bal.	≦0.03	—	12～15	2～3	16～18	Si:≦1.5	≦2	≧6.2	≧200	—	≧1	—	≧30HRB	—	—			-FL316-170N

※ Equivalent grade is for reference, so it doesn't guarantee to satisfy these specification.