Powder Metallurgy Material Compositions – JIS Standard

Standard	Material Code	Density (g/cm3)	Hardness	Tensile Strength		Impact Test 1 N/mm2 = 1MPa		Compositions (%)							
				Ultimate (MPa)	Yield (MPa)	Force (J/cm2)		Fe	Cu	C	Ni	Mo	Mn	Cr	Sn
JIS Z 2550 : 2000 (Japan Standard)	SMF 1015	6.8	HRF 60	150		10		Bal.							
	SMF 1020	7.0	HRF 60	200		15		Bal.							
	SMF 3030	6.6	HRB 30	300		5		Bal.		0.4-0.8					
	SMF 3035	6.8	HRB 40	350		5		Bal.		0.4-0.8					
	SMF 4040	6.6	HRB 30	400		5		Bal.	1-5	0.2-1.0					
	SMF 4050	6.8	HRB 84	500		5		Bal.	1-5	0.2-1.0					
	SMF 5030	6.6	HRB 83	300		10		Bal.	0.5-3.0	0.8 max	1-5				
	SMF 5040	6.8	HRB 85	400		10		Bal.	0.5-3.0	0.8 max	2-8				
	SMF 6040	7.2	HRB 50	400		10		Bal.	15-25	0.3 max					
	SMF 6055	7.2	HRB 80	550		5		Bal.	15-25	0.3-0.7					
	SMF 6065	7.4	HRB 90	650		10		Bal.	15-25	0.3-0.7					
	SMF 8040	6.8	HRB 80	400		15		Bal.		0.4-0.8	1-5				
	SMS 1025	6.4	HRB 50	250		-		Bal.		0.08 max	8-14		2-3	16-20	
	SMS 1035	6.8	HRB 50	350		-		Bal.		0.08 max	8-14		2-3	16-20	
	SMS 2025	6.4	HRB 60	250		-		Bal.		0.2 max				12-14	
	SMS 2035	6.8	HRB 60	350		-		Bal.		0.2 max				12-14	
	SMK 1010	6.8	HRH 70	100		5			Bal.	1.5 max					9-11
	SMK 1015	7.2	HRH 80	150		10			Bal.	1.5 max					9-11