Materials in the MIM process
Magnetic materials, heavy tungsten & super alloys

Material specification		Alloy composition (wt %)	Condition	YS (0,2%) (MPa)	UTS (MPa)	Elon-gation (%)	Hardness	Tightness g/cm³ (min.)	Comments
Magnetic materials	MIM Fe 3Si (MIM-FE-3%Si Grade 1)	C 0 .08% Si 2.5 - 3.5 % Fe Balance	sintered	372	525	23	80 HRB	7.50	-
	MIM Fe 49 Co-2V (MIM-FE-50% Co)	C 0 .08 max Co 47 - 50% V 1.5 - 2.1% Fe Balance	sintered	132	201	<1	80 HRB	7.80	-
	MIM SS 430	C 0 .08 max Cr 16 - 18 Fe Balance	sintered	242	438	25	80 HRB	7.40	-
Heavy tungsten alloys	MIM WHA1	Ni 2.5 - 3.5% Fe 0.5 - 1.0% W Balance	sintered	-	-	-	-	18.0	-
	MIM WHA2	Ni 3 - 4% Cu/Fe 1 max W Balance	sintered	-	-	-	-	18.0	-
Super alloys	MIM NIMO-NIC 90	C 0.13 max Fe 5 max Ti 1.5 - 3% Al 1 -2% Co 15 - 21% Cr 17 - 21% Ni Balance	sintered & heat-treated	1162	782	12	300 - 400 Hv1	7.70	-