

MIM-Material Specification and Applications

Composition

Material:	High speed steel
Standards:	AISI M2, S 6-5-2, 1.3343

Typical composition::	<i>Element</i>	<i>Content (%)</i>
	C	0.8 – 1.05
	Cr	3.75 – 4.50
	Si	0.20 – 0.45
	Mn	≤ 0.45
	Mo	4.50 – 5.50
	V	1.75 – 2.20
	W	5.50 – 6.75
	Fe	Balance

Properties	As sintered	Annealed	Hardened
Density	-	-	-
Hardness	≥ 600 HV1	≥ 200 HV1	≥ 700 HV1
Yield strength $R_{p0.2}$	-	-	-
Tensile strength R_m	-	-	-
Elongation A	-	-	-
Surface quality R_a	≤ 3.2 μm	≤ 3.2 μm	≤ 3.2 μm

Application / remarks

Highest-stressed tool steels, reamers, twist drills, milling cutters, segments for circular saws, etc.