
MIM-Material Specification and Applications

Composition

Material:

Heat treatable steel

Standards:

AISI 4340, DIN 40NiCrMo6, 1.6565

Typical composition::

<i>Element</i>	<i>Content (%)</i>
C	0.30 – 0.50
Cr	0.70 – 0.90
Ni	1.40 – 2.00
Si	≤ 1.00
Mn	≤ 1.00
Mo	0.20 – 0.30
Fe	Balance
Other	-

Properties

	As sintered	Quenched + Tempered
Density	≥ 7.30 g/cm ³	≥ 7.30 g/cm ³
Hardness	≥ 200 HV1	≥ 400 HV1
Yield strength R _{p0.2}	≥ 500 MPa	≥ 750 MPa
Tensile strength R _m	≥ 700 MPa	≥ 900 MPa
Elongation A	≥ 5%	≥ 2 %
Surface quality R _a	≤ 3.2 μm	≤ 3.2 μm

Application / remarks

Highly stressed sections in the construction of vehicles, mechanical engineering etc.