

MIM-Material Specification and Applications

Composition

Material:

Martensitic stainless steel

Standards:

AISI 440C, DIN X105CrMo17, 1.4125

Typical composition::

<i>Element</i>	<i>Content (%)</i>
C	0.95 – 1.20
Cr	16.0 – 18.0
Ni	-
Si	≤ 1.00
Mn	≤ 1.00
Mo	≤ 0.75
Fe	Balance
Other	-

Properties

	As sintered	Quenched + tempered
Density	≥ 7.20 g/cm ³	≥ 7.20 g/cm ³
Hardness	≥ 200 HV1	≥ 600 HV1
Yield strength R _{p0.2}	-	-
Tensile strength R _m	-	≥ 1500 MPa
Elongation A	-	-
Surface quality R _a	≤ 3.2 μm	≤ 3.2 μm

Application / remarks

AISI 440C is applied for components which require highest hardness and wear resistance coupled with corrosion resistance. This alloy is specially suited for applications of severe wear.