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## MIM-Material Specification and Applications

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### Composition

**Material:**

**Martensitic stainless steel**

**Standards:**

**AISI 430F, ~DIN X12CrMo17, ~1.4104**

Typical composition::

<i>Element</i>	<i>Content (%)</i>
C	0.10 – 0.15
Cr	16.0 – 18.0
Ni	-
Si	≤ 1.00
Mn	≤ 1.00
Mo	-
Fe	Balance
Other	-

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### Properties

	<b>As sintered</b>	<b>Quenched + tempered</b>
Density	≥ 7.20 g/cm <sup>3</sup>	≥ 7.20 g/cm <sup>3</sup>
Hardness	≥ 200 HV1	≥ 250 HV1
Yield strength R <sub>p0.2</sub>	≥ 300 MPa	≥ 400 MPa
Tensile strength R <sub>m</sub>	≥ 500 MPa	≥ 600 MPa
Elongation A	≥ 5 %	≥ 1 %
Surface quality R <sub>a</sub>	≤ 3.2 μm	≤ 3.2 μm

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### Application / remarks

AISI 430F is applied for components which require high corrosion resistance and ferritic (magnetic) properties. This alloy is specially suited for solenoid valve components.

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The data given are based on our experience to date. However, no liability can be assumed.