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Parmaco
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MIM-Material Specification and Applications

Composition

Material: **Heat treatable steel**

Standards: **AISI 4140, DIN 42CrMo4, 1.7225**

Typical composition::

Element	*Content (%)*
C	0.30 – 0.50
Cr	0.90 – 1.20
Ni	-
Si	≤ 1.00
Mn	≤ 1.00
Mo	0.15 – 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	≥ 650 MPa
Tensile strength R_m	≥ 700 MPa	≥ 850 MPa
Elongation A	≥ 5%	≥ 5 %
Surface quality R_a	≤ 3.2 µm	≤ 3.2 µm

Application / remarks

Chromium - molybdenum steel for applications requiring high tensile and toughness values. Components in automotive and gear and engine construction, e.g. crankshafts, steering knuckles, connecting rods, spindles, intermediate gears, pump and gear shafts.