
MIM-Material Specification and Applications

Composition

Material: Nickel free austenitic stainless steel

Standards: Parmaco Panacea, Fe17Cr11Mn3Mo

Typical composition:	<i>Element</i>	<i>Content (%)</i>
	C	0.05 – 0.15
	Cr	16.0 – 18.0
	Mn	11.0 – 12.0
	Mo	3.00 – 4.00
	Si	≤ 1.00
	N	≥ 0.50
	Ni	≤ 0.10
	Fe	Balance
	Other	-

Properties

	As sintered
Density	≥ 7.35 g/cm ³
Hardness	≥ 270 HV1
Yield strength R _{p0.2}	≥ 650 MPa
Tensile strength R _m	≥ 1000 MPa
Elongation A	≥ 35 %
Surface quality R _a	≤ 1.6 μm

Application / remarks

The substitution of nickel in austenitic stainless steels is driven by nickel allergy, where the avoidance of nickel sensitisation is the most important measure to prevent nickel allergic contact dermatitis. The material is used in medical technology and the jewellery industry. Due to its high mechanical properties, the alloy is also becoming increasingly attractive for other areas of application.

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