



Invar 36 (FeNi36) / 1.3912

Invar 36® is a nickel-iron, low expansion alloy that contains 36% nickel and possesses a rate of thermal expansion approximately one-tenth that of carbon steel. Alloy 36 maintains nearly constant dimensions over the range of normal atmospheric temperatures, and has a low coefficient of expansion from cryogenic temperatures to about 500°F. This nickel iron alloy is tough, versatile and retains good strength at cryogenic temperatures.

Gehe zu



Material Data Sheet

ASTM	F1684
UNS	K93603

Main fields of application

Invar 36 is used mainly for:

- Aircraft controls
- Optical & laser systems
- Radio & electronic devices
- Composite forming tools & dies
- Cryogenic components

Chemical composition of Invar 36

Ni	C	Si	Mn	S
35.5 - 36.5	0.01 max	0.2 max	0.2 - 0.4	0.002 max
P	Cr	Co	Fe	
0.07 max	0.15 max	0.5 max	Balance	

Mechanical properties of Invar 36

Metallurgical Condition	Annealed, Descaled	
Yield Strength	KSI (MPa) 38	(260) Max
Tensile Strength	KSI (MPa) 63	(430) Max
Hardness	HB	135
Elongation	50mm	>30% (Typical 40%)

Delivery program

Plates: thickness range from 4 mm up to 130 mm

Sheets: thickness range from 0.1 mm up to 3mm

Flat material: Various sizes mm

Round material: Ø 3 mm up to 280 mm

Material Outlet by Hempel

ECONOXX.com offers buyers a new and uncomplicated procurement channel, which also includes small quantities and materials in special alloys at favourable conditions.

Contact us

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