



Invar 42® (alloy 42, Nilo 42®) / 1.3917 / UNS K94100

Invar 42® is a nickel-iron alloy that contains 41% nickel and exhibits excellent controlled expansion qualities and is used primarily for controlled expansion and magnetic applications. Invar 42® is also highly effective in magnetic applications. It can be hot formed, cold formed or machined. Nilo 42 possesses many of the qualities of the other Invar nickel iron alloys. It is effective in extreme temperatures ranging from -32C to 275C.

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Material Data Sheet

ASTM	F30
UNS	K94100

Main fields of application

Invar 42 is used mainly in:

- Transformer & capacitor bushings
- Automotive & industrial lamps
- Electronic tubes
- Glass-to-metal applications
- Ceramic-to-metal Applications

Chemical composition of Invar 42

Ni	Fe
42	Balance

Mechanical properties of Invar 42

Metallurgical Condition	Annealed, Descaled	
Yield Strength	KSI (MPa) 36	(248)
Tensile Strength	KSI (MPa) 71	(490)
Hardness	HB	130
Elongation	50mm	>40

Delivery program

Various sizes and tolerances available upon request.

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.

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