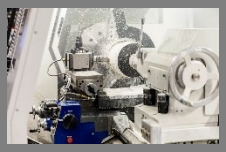
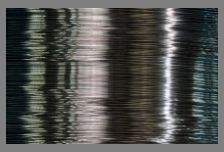
Technical Datasheet
W48

Characteristics and scope of application

- This material possesses the highest saturation magnetisation of all iron-nickel alloys, combined with a high magnetic permeability.
- The delivery condition of W48 is usually annealed, but highest magnetic performance is only achieved after a suitable final annealing step.

Standard designations

- DN designation W48
- Alloy number / UNS 1.3922 / -
- Norms DIN 17745
- Typical chemical composition Ni 48%, Fe 52%

Physical properties

Density	Temperature liquidus line	Inflection temperature	Electrical resistivity	Coercivity	Mean coefficient of thermal expansion
kg/dm³	°C	°C	Ohm mm²/m	Hc [A/m]	10^{-6}/K | RT to 400°C
8.3	1445	440	0.45	< 12	8.5

Mechanical properties

Ultimate tensile strength	Yield strength	Elongation
MPa	MPa	%
510*	280*	40*

* soft annealed

Deutsche Nickel