

TECHNICAL DATA

Standards

DIN Material Nr. 1.3912 / Generic Name: Invar36

ASTM :	F 1684-06
UNS :	K93600 / K93603

General Properties

DSI M Connect 6 is a nickel-iron alloyed Laser Welding Wire called 'Invar36' for high mechanical properties and very low thermal elongation. For similar welding on cast iron with 34-40% Nickel content. It has a low coefficient of expansion from cryogenic temperatures to about 260°C.

Mechanical Properties

Yield strength $R_{p0.2}$	[MPa] / [N/mm ²]	≥310
Tensile strength R_m	[MPa] / [N/mm ²]	≥490
Elongation A ($L_0 = 5d_0$)	[%]	≥30
Hardness	[HB]	150

Chemical Composition (Standard Values in %)

C	Ni	Mn	Mo	Cr	Cu	Si	P	S
0.1	36.0	0.6	0.5	0.5	0.5	0.35	0.025	0.025

Compatible Materials / Field of Applications (Selection)

Cast iron steel / Invar36 / aerospace and satellites / cryogenic fuel tank (spacecrafts rockets, LNG tanks) / medical equipment / molds and dies / military and defence.

Packaging and available Sizes*

Spool : MA125 mm	Ø mm	0.2 / 0.3 / 0.4 / 0.5 / 0.6 / 0.7 / 0.8 / 1.0 / 1.2
Rod : 500 / 1000 mm	Ø mm	0.2 / 0.3 / 0.4 / 0.5 / 0.6 / 0.7 / 0.8 / 1.0 / 1.2

* Other dimensions available on request

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