



HSM Wire International, Inc

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INVAR ALLOY 36 Datasheet and Technical Information

Physical Properties

Density	0.293 lbs/in ³
Melting Point	2605°
Electrical Conductivity	69.3 BTU · ft/ft ² · hr · °F

Chemical Composition

	Ni	Fe	Mo	C	Cu	Mn	Si	P	S	Cr
Min	35	~	~	~	~	~	~	~	~	~
Max	37	Bal	0.5	0.1	0.5	0.6	0.35	0.025	0.025	0.5

Coefficient of Thermal Expansion, in/in °F x 10⁻⁶ *70°F to indicated Temp.

Temp. °F	-328	-148	212	302	392	482	572	662	752	842	932
Coefficient of Thermal Expansion, in/in °F x 10 ⁻⁶	0.8	0.7	0.8	1.1	1.4	1.9	3.1	4	4.7	5.2	5.6

Mechanical Properties / Typical Tensile Properties

Temp. °F	68	212	392	572	752	932	1112
Ultimate Tensile Strength, ksi	71	62	62	59	51	42	30
0.2% Yield Strength, ksi	35	26	16	13	13	13	11
Elongation, %	42	43	45	48	53	59	68

***To be used as a guideline only

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