

INVAR 36 is a nickel-iron, low-expansion alloy containing 36% nickel. It 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. The alloy also retains good strength and toughness at cryogenic temperatures.

INVAR 36 can be hot and cold formed and machined using processes similar to austenitic stainless steels. INVAR 36 is weldable using Filler Metal CF36 which is available in bare wire for both the GTAW and GMAW process.

emical Composition, %		Ni	Fe	Мо	C	Cu	Mn	Si		Р	S	Cr	r
	MIN	35.0	-	-	-	-	-	-		-	-	-	
	MAX	37.0	balance	0.5	0.1	0.5	0.6	0.35	5	0.025	0.025	i 0.	.5
atures		expansion dily welda	n rate up to 5 ible	600°F									
plications	• Cry	ling and di ogenic con er compon		site form	iing								
plications vsical Properties	• Cry • Las	ogenic con	nponents ents			lectrical Cor	ductivity: 6	9.3 Btu ● f	t∕ ft²●∤	ır●°F			
	• Cry • Las Densit	ogenic con er compon	nponents ents			lectrical Cor 212 30		9.3 Btu • f	t/ft²•f 572	nr ● °F 662	752	842	932
	• Cryv • Las Densit	ogenic con er compon y: 0.293 lb erature, °F	nponents ents	Point: 2	605°F E		2 392				752 4.7	842 5.2	932

Ultimate Tensile Strength, ksi

0.2% Yield Strength, ksi

Elongation, %





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