APAR
Tomorrow's solutions today

ALUMINUM CLAD INVAR [AS INVAR]

Aluminum Clad Invar is Fe-36%Ni alloy. "Invar" is an abbreviation of invariable.That means invar alloy length is invariable against temperature change.Thermal expansion coefficient of AS Invar is 3.7 x 10^{-6}/°C (below 230°C), which is one third of steel's and one sixth of aluminum's. AS invar adopts aluminum cladding for coating. AS invar withstands high temperature condition and offers better anti-corrosion characteristic.

ALUMINUM CLAD INVAR - AS PER JCS 1404 STD.

Diameter	Diameter Tolerance	Min. Tensile Strength	Min. Elongation at fracture on 250mm Gauge length	Mon. No. of twists on 100xD	Min. Radial Thickness of Aluminum Cladding	Coefficient of Linear Expansion		Mass	Min. Conductivity	DC Resistance @ 20°C
						15~230°C	230~290°C			
(mm)	(mm)	(N/mm²)	%	(turns)	(mm)	X 10^{-6} C^{-1}	X 10^{-6} C^{-1}	(Kg/Km)	(%IACS)	(Ω/Km)
3.00	± 0.06	1030	1.50	20.00	4.6% of nominal radial thickness	≤ 3.70	≤ 10.80	50.19	13.8	17.42
3.40	± 0.07	981						64.46		13.56
3.80	± 0.07	981						80.52		10.86
4.30	± 0.08	932						103.11		8.48
5.00	± 0.10	932						139.41		6.27

ALUMINUM CLAD INVAR - HIGH STRENGTH

Diameter	Diameter Tolerance	Min. Tensile Strength	Min. Elongation at fracture on 250mm Gauge length	Mon. No. of twists on 100xD	Min. Radial Thickness of Aluminum Cladding	Coefficient of Linear Expansion		Mass	Min. Conductivity	DC Resistance @ 20°C
						15~230°C	230~290°C			
(mm)	(mm)	(N/mm²)	%	(turns)	(mm)	X 10^{-6} C^{-1}	X 10^{-6} C^{-1}	(Kg/Km)	(%IACS)	(Ω/Km)
2.00	± 0.04	1150	1.50	20.00	4.6% of nominal radial thickness	≤ 3.70	≤ 10.80	22.31	13.8	39.20
2.30	± 0.04	1150						29.50		29.64
2.60	± 0.05	1150						37.70		23.20
2.80	± 0.05	1130						43.72		20.00
3.00	± 0.06	1130						50.19		17.42
3.40	± 0.06	1100						64.46		13.56
3.80	± 0.06	1100						80.52		10.86
4.00	± 0.06	1080						89.22		9.80
4.30	± 0.06	1080						103.11		8.48
4.50	± 0.06	1080						112.92		7.74
5.00	± 0.07	1030						139.41		6.27