

AI-1742FC

Specifications

AWS/ASME A5.29: E 110 T5 –K4 H4 110 S-G
E 110 T5 –K4M H4

Description and Applications

AI 1742 FC is a seamless copper coated, low alloy steel wire.

Recommended for all positional Gas Metal Arc Welding of high strength steels. It produces a low alloy (nominally, 1.4%Ni, 0.4%Cr, 0.30%Mo, 0.10%V) steel weld deposit of the 690 MPa tensile class. Good low temperature properties and controlled bead shape.

Applications: Ideal for welding of high tensile steels particularly the notch tough, quench and tempered types such as Bisalloy 80, HY 100, USST1 and Welten 80. Resultant weld deposits have excellent toughness in the "as welded" condition.

Typical Weldmetal Analysis

C	Mn	Si	S	P	Fe	Ni	Cr	V	Mo	H
0.06	1.34	0.40	Trace	Trace	Bal	2.7	0.52	0.10	0.25	*

*Hydrogen content: Typically, 2ml per 100g weld metal (Max 5)

Mechanical Properties of Weldmetal

	As Welded
0.2% Proof Stress	760 MPa
UTS	820 MPa
Elongation 4D	17-21%
Charpy v Impact -50°C	>60 Joules
Shielding Gas	Argon + CO₂ or CO₂

15Kg Spools

Welding Instructions

The use of Argon based shielding gas (Ar + 15% CO₂ Min) will result in higher Mn and Si weld metal recovery, leading to higher tensile properties. This gas will also improve arc transfer and lower spatter levels. However, the operator is cautioned against moving into a "spray" type transfer, a globular type transfer being the preferred mode for the best mechanical and joint properties.



Welding Parameters

Diameter (mm)	Current type	Amps
1.2	DC(+)	150-220

Use 3-4 volts lower when using Ar + CO₂ shielding gas.

Welding Positions

(1G, 1F) Downhand/flat position, (2F) Horizontal position, (2G) Horizontal vertical position

Disclaimer

All figures in this datasheet should be considered indicative only. No guarantee is made as to their accuracy.

All figures subject to change without notice. Batch analysis is available for all products sold. Should you require any further information, please contact us at sales@alloysint.com.au

