

AI-1705

Specifications

AWS/ASME A5.28 : ER90S-B3
ISO 21952-B : G 2C1M

Description and Applications

2.25Cr-1%Mo content to be used for the welding of creep resistant steel.

AI-1705 is a Low alloy copper-coated solid wire with 2.25% Cr and 1% Mo content to be used for the welding of creep resistant steel. Chemical composition conforming to classification: AWS A 5.28: ER90S-B3. It is used in the chemical industry and in the ammonia synthesis process.

Applications include: Heat exchangers, boilers, piping & pressure vessels for temperature service up to about 600°C. It will also find applications in the petro-chemical industries, suitable for facing on casting and for casting repairs. To be used under the shield of Ar+CO₂.

Typical Weldmetal Analysis

C	Mn	Si	S	P	Cr	Mo	Cu
0.08	0.60	0.60	0.010	0.010	2.50	1.0	0.12

Mechanical Properties of Weldmetal

	As Welded
Tensile Strength	670MPa
Yield Strength (0.2%)	570MPa
Elongation	20%
Shielding Gas	Ar + 20-25% CO²

Welding Instructions

Preheat and interpass temperature 200°C. PWHT at 690°C for an hour.

Welding Parameters

Diameter (mm)	Current type	Amps
0.9	DC +	70-240
1.2	DC +	100-360
1.6	DC +	130-450

Welding Positions

(1G, 1F) Downhand/flat position, (2F) Horizontal position, (2G) Horizontal vertical position, (4F) Horizontal overhead position, (4G) Overhead position, (3G, 3F, 5G up) Vertical Position Up

Disclaimer

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

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