

AI-1780

Specifications

AWS/ASME A5.9/A5.9M ER312

AS/NZS ISO 1434 B SS312

Description and Applications

Weld metal is austenite structure with 30% Cr-9% Ni.

Superior crack resistance at high strength due to high ferrite content.

Good corrosion resistance at high temperature due to high Cr content.

It is suitable for welding dissimilar metals, clad steel, stainless steel sheet linings, alloy steel with high hardenability and may be used as buffer layer before hardfacing.

Typical Weldmetal Analysis

C	Si	Mn	P	S	Cr	Ni
0.012	1.62	0.49	0.012	0.011	28.98	10.09

Mechanical Properties of Weldmetal

	As Welded
Yield Stress	600MPa
Tensile Strength	740MPa
Elongation (4d)	25%
Shielding Gas	Argon + 1-2% O₂ Argon + 20-25% CO₂

Welding Parameters

Diameter (mm)	Current type	Amps
0.9	DC(+)	90-150
1.2	DC(+)	150-220

Welding Instructions

Use Ar blend with 1-2%O₂ for high current, spray transfer welding.

Use Ar blend with 20-25%CO₂ for low current, short-circuit transfer welding.

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.

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