

82

82 filler metal is used for Gas-Tungsten-Arc (GTAW), Gas-Metal-Arc (GMAW) and Submerged-arc (SAW) welding for alloy 600. Weld metal deposited by 82 has high strength and good corrosion resistance, including oxidation resistance and creep-rupture strength at elevated temperatures. 82 filler metal is used to join nickel alloys to stainless steels and carbon steels.

182

182 filler metal is used for Shielded-Metal-Arc (SAW) welding for alloy 600. The weld metal has good high-temperature strength and oxidation resistance and can meet stringent radiographic requirements. 182 filler metal is used to join nickel alloys to stainless steels and carbon steels. The electrodes provide excellent operability for groove and fillet welding in the downhand position and the smaller diameter electrodes are also suitable for all position welding.

Specifications

82 - UNS: N06082 AWS: A5.14 AWS CLASSIFICATION: ERNiCr-3 DIN: 1736 SG-NiCr20Nb (2.4806)
182 - UNS: W86182 AWS: A5.11 AWS CLASSIFICATION: ENiCrFe-3 DIN: 1736 EL-NiCr15FeMn (2.4807)

Chemical Composition, %

		Cr	Ni + Co	Mn	Fe	C	Si	Ti	Nb + Ta	Cu	S	P
82	MIN	18.0	67.0	2.5	—	—	—	—	2.0	—	—	—
	MAX	22.0	—	3.5	3.0	0.10	0.50	0.75	3.0	0.50	0.015	0.03
182	MIN	13.0	59.0	5.0	—	—	—	—	1.0	—	—	—
	MAX	17.0	—	9.5	10.0	0.10	1.0	1.0	2.5	0.50	0.015	0.03

Features

- High strength
- Good corrosion resistance
- Very good weldability

Applications

- Steel surfacing
- dissimilar metal welding

Availability

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GMAW	Diameter, in		0.035	0.045	0.062	0.093		
GTAW	Diameter, in	0.03	0.035	0.045	0.062	0.093	0.125	0.15625
FCAW	Diameter, in			0.045				

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Electrode	Diameter, in	3/32	1/8	5/32	3/16			
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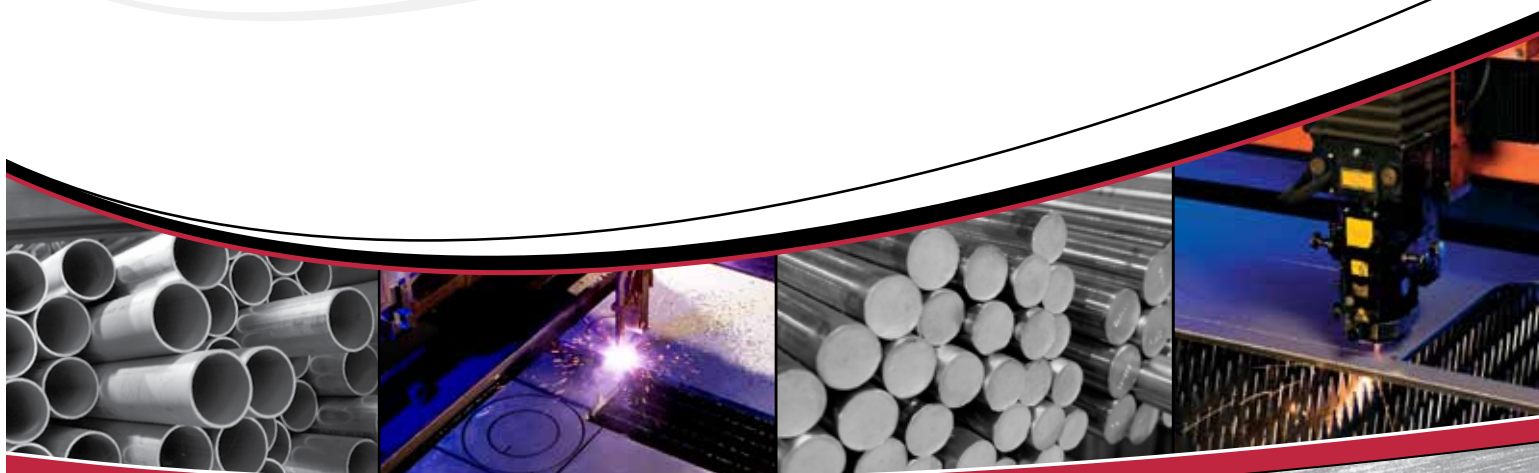
Mechanical Properties

Typical Tensile Properties

Ultimate Tensile Strength, ksi	80
Elongation 4D, %	30



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