

## Ni-Cr Filler Metal

### INCONEL® Filler Metal 82

**INCONEL Filler Metal 82** is used for gas-tungsten-arc, gas-metal-arc and submerged-arc welding of INCONEL alloys 600, 601 and 690, INCOLOY alloys 800 and 800HT, and INCOLOY alloy 330. It is also used for surfacing of steel.

Weld metal deposited by INCONEL Filler Metal 82 has high strength and good corrosion resistance, including oxidation resistance and creep-rupture strength at elevated temperatures.

Dissimilar-welding applications include joining INCONEL alloys, INCOLOY alloys and INCOLOY alloy 330 to nickel, MONEL alloys, stainless steels, and carbon steels. It is also used to join stainless steels to nickel alloys and carbon steels.

#### Specifications

AWS A5.14 ERNiCr-3 (UNS N06082)  
ASME II, Part C, SFA-5.14, ERNiCr-3 (UNS N06082)  
ASME IX, F-No.43  
\*BS 2901 (NA35)  
\*DIN 1736 SG-NiCr20Nb (2.4806)  
\*(EN) ISO 18274 – S Ni6082 (NiCr20Mn3Nb)  
\*Supply to these specifications available upon request  
For manufacture to ASME III (NCA3800, NB2400), MIL, Rolls Royce, AMS and other specifications please refer your inquiry to the Technical Department prior to order placement.

#### Approvals

Canadian Welding Bureau  
VdTUV 2110.01; 2111.01; 2117.01; 2118.01  
Other approvals may be applicable. Please confirm details of current scope of approvals with the Technical Department prior to order placement.

Limiting Chemical Composition (%)	Ni+Co		Si	
		67.0 min.		0.50 max.
	C	0.10 max.	Cr	18.0-22.0
	Mn	2.5-3.5	Ti	0.75 max.
	Fe	3.0 max.	Nb+Ta	2.0-3.0
	S	0.015 max.	P	0.030 max.
	Cu	0.50 max.	Others	0.50 max.

Minimum Mechanical Properties	Tensile Strength, psi	
		80,000
	MPa	552
	Elongation, (4d) %	30

Filler metals available on spool and in cut straight lengths in a variety of sizes selected from the following diameters:

#### Available Product Forms

mm in	0.8 0.030	0.9 0.035	1.0 0.040	1.14 0.045	1.2 0.047	1.6 0.062	2.4 0.093	3.2 0.125
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Straight Lengths - 915 mm (36 in.) or 1000 mm (39 in.)

Wire Diam.	13.62 kg Spool
0.9mm	SMM8209
1.2mm	SMM8212

Rod Diam.	4.54 kg Tube
1.6mm	SMT8216
2.4mm	SMT8224

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