

ERNiCr-3 Filler Metal

For Welding Alloys 600 / 601 / 690 and INCOLOY Alloys 800 / 800HT / 330

ERNiCr-3 filler metal is designed for gas-tungsten-arc (GTAW), gas-metal-arc (GMAW), and submerged-arc welding of nickel-chromium-iron alloys such as 600, 601, 690 and INCOLOY alloys 800, 800HT, and 330. It is also suitable for surfacing on steel. Submerged-arc welding is performed with NT100 flux for groove or surfacing applications.

The weld metal provides high strength and excellent corrosion resistance, including oxidation resistance and creep-rupture performance at elevated temperatures. ERNiCr-3 is also suitable for dissimilar welding between nickel alloys, MONEL alloys, stainless steels, and carbon steels, as well as joining stainless steels to nickel alloys and carbon steels, making it ideal for high-temperature industrial and chemical applications.

Specification

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)

Custom specifications available upon request.

For information regarding certifications and industry approvals, please contact our Technical Department.

Limiting Chemical Composition(%)

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

Minimum Mechanical Properties

Property	Value
Tensile Strength, psi	80,000
MPa	552
Elongation, (4d) %	30

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
----------	--------------	--------------	--------------	---------------	--------------	--------------	--------------	--------------

Straight Lengths - 915 mm (36 in.) or 1000 mm (39 in.)