

ER NiCr-3 (Alloy 82)

Nickel Alloy WIRE/GTAW

Standards

EN/ISO-Standard - 18274

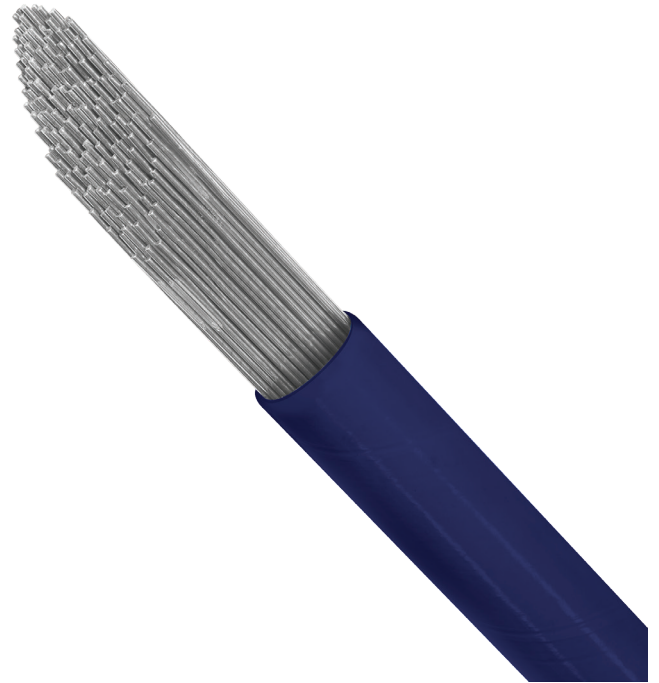
AWS-Standard - A5.14

EN/ISO-Classification - S Ni 6082 - NiCr20Mn3Nb

AWS-Classification - ER NiCr-3

Features and Applications

- Alloy 82 is used for the welding of alloys 600, 601, 690, 800 and 800HT etc.
- Weld metal deposited has high strength and good corrosion resistance, including oxidation resistance and creep rupture strength at elevated temperatures.
- Ideal for dissimilar welding applications between various nickel alloys, stainless steels, carbon steels including overlay.
- Suitable for applications ranging from cryogenic to high temperatures making this alloy one of the most used in the nickel family.
- Typically used in the power generation and petrochemical industries etc.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

Alloy 600, Alloy 601, Alloy 690, Alloy 800, Alloy 330*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF, PG

Shielding Gases

EN ISO 14175 - TIG: I1 (Argon)

Polarity

DC (-)

Mechanical Properties

Tensile Strength (N/mm ²)	Yield Strength (N/mm ²)	Elongation (%)	Impact Strength (J)
≥550	≥360	≥30	≥100

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Range)

C %	Mn %	Fe %	P %	S %	Si %	Cu %	Ni %	Co %	Ti %	Cr %	Nb + Ta %
max	2.50	max	max	max	max	max	67.00	max	max	18.00	2.00
0.05	3.50	3.00	0.030	0.015	0.50	0.50	min	1.00	0.75	22.00	3.00

Packaging Data

Part No.	Diameter Ø (mm)	Package Length (mm)	Package Weight (Kg)	Package Type
6031100106	1.60	1000	5	Cardboard Tube
6031100303	2.40	1000	5	Cardboard Tube

Liability: Whilst all reasonable efforts have been made to ensure the accuracy of the information contained, this information is subject to change without notice and can be only considered as suitable for general guidance.

