

ER 80S-Ni1

Low Alloy WIRE/GTAW

Standards

EN/ISO-Standard - 636-A
EN/ISO-Classification - W 3Ni1

AWS-Standard - A5.28
AWS-Classification - ER 80S-Ni1

Features and Applications

- Copper coated, Ni-alloy (1,0% Ni), solid wire for low temperature, fine grained and austempering steels.
- Excellent impact toughness due to the addition of Nickel.
- Good mechanical properties at sub-zero temperatures down to -50°C.
- Especially suitable for use in the offshore industry.
- Typically used on the building up of cranes, transport, tanks, industrial facilities, equipment in general, pipelines, shipbuilding etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

A106, A515, A714, A131, A369, A210, L290, P235 T1/T2, P275 T1 ; L360, L415 ; P275T2, P355N ; X-42, X46, X62, X60 ; P235GH, P355GH ; A283, A285, A414, A372, A662, S275, S420, A516, A255, A333, A350, A612*

* Illustrative, not exhaustive list

Welding Positions

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

Shielding Gases

EN ISO 14175 - TIG: I1 (Argon)

Polarity

DC (-)

Mechanical Properties (Typical)

Tensile Strength (N/mm ²)	Yield Strength (N/mm ²)	Elongation (%)	Impact Strength (J)	Test Temperature
600	480	26	100	-50°C

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

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu % ^a	Cr %	Ni %	Mo %	Al %	V %	Zr+Ti %
0.09	0.70	1.20	<0.015	<0.015	<0.25	<0.15	1.00	<0.15	<0.020	<0.030	<0.050

^a (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Length (mm)	Package Weight (Kg)	Package Type
6011100522	1.60	1000	5	Cardboard Tube
6011100380	2.40	1000	5	Cardboard Tube
6011100521	3.20	1000	5	Cardboard Tube

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