

ER 80S-Ni2

Low Alloy WIRE/GMAW

Standards

EN/ISO-Standard - 14341-A
EN/ISO-Classification - G 50 9 M23 2Ni2

AWS-Standard - A5.28
AWS-Classification - ER 80S-Ni2

Features and Applications

- Copper coated, Ni-alloy (2,5% 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 -60°C.
- Especially suitable for use in the offshore industry.
- Precision layer wound for superior wire feeding characteristics.
- 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

S235NL2, 14Ni6, 12Ni14, X12Ni5, S255N, S380N, S255NL, S380NL, S255NL1, S380NL1 ; A333: Gr. 1-3, A422: Gr.55-60, A334: Gr.3 ; 0Ni14, 13MnNi63, TTStE 355, TTStE 460, HY 80, TTStE 35 N*

* Illustrative, not exhaustive list

Welding Positions

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

Shielding Gases

EN ISO 14175 - C1, M21, Argon + 1-5% O2

Polarity

DC (+)

Welding Parameters

Ø mm	0.80	1.00	1.20
Current (A)	40-160	80-270	120-340
Voltage (V)	16-22	18-28	20-33

Mechanical Properties (Typical)

Tensile Strength (N/mm ²)	Yield Strength (N/mm ²)	Elongation (%)	Impact Strength (J)	Test Temperature
630	530	26	100	-60°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 %
0.08	0.50	1.10	<0.015	<0.015	<0.25	<0.15	2.50	<0.15	<0.020	<0.030	<0.050

^a (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
6011100550	0.80	15	D300 PLW	72
6011100555	1.00	15	D300 PLW	72
6011100551	1.20	15	D300 PLW	72

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