

# 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 <sup>2</sup> )	Yield Strength (N/mm <sup>2</sup> )	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 % <sup>a</sup>	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

<sup>a</sup> (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

**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.



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