

# ER 80S-Ni1

Low Alloy WIRE/GMAW

## Standards

EN/ISO-Standard - 14341-A  
EN/ISO-Classification - G 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.
- 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

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, 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
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 % <sup>a</sup>	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

<sup>a</sup> (includes copper coating)

## Packaging Data

Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
6031100483	0.80	15	D300 PLW	72
6031100482	1.00	15	D300 PLW	72
6031100481	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.

