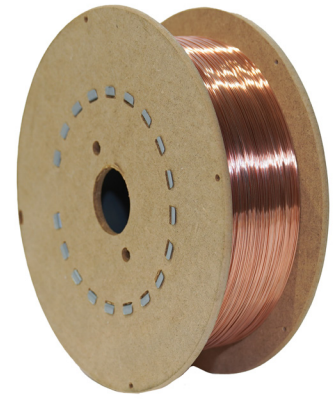


# Copper-Glide™ NS-101 Copper-Coated Welding Wire

**AWS ER70S-3, EM13K**



NS Copper-Glide™ 101 Copper-Coated Welding Wire is a premium copper-coated mild steel solid filler metal designed to extract maximum weld quality and user appeal from ER70S-3 wire.

Careful attention to the manganese and silicon contents assures maximum deoxidation, flat bead profiles, and low-spatter welds.

## Manufacturing Advantages

- Low carbon killed and semi killed steel
- All metal transfer modes of GMAW
- Robotic, mechanized, or semi-automatic welding
- Welding steel with light mill scale, light rust, or thin oil
- Used for single and multi-pass weldments
- Applications requiring a minimum 70,000 psi tensile strength
- Reduced spatter for cleaner welds and minimal post-weld cleaning
- Smooth and stable arc characteristics for consistent welding

## Welding Positions

All position welding is possible when using the correct shielding gas blends, welding process, and welding parameters.

## Shielding Gas Blends

- 100% CO<sub>2</sub>
- 75-95% Argon/Balance CO<sub>2</sub>
- 95-98% Argon/Balance O<sub>2</sub>
- Flow rate of 35-50 CFH

## Applications

- Agricultural Equipment
- Auto Body
- Automotive Exhaust
- General Fabrication
- Heavy Equipment
- Pipe Welding
- Pressure Vessels
- Railcars
- Shipbuilding
- Structures
- Trailers

## Specifications

Meets or Exceeds:

- AWS A5.18: ER70S-3, AWS A5.18M: ER48S-3
- AWS A5.17: EM13K
- ASME SFA-5.18: ER70S-3
- MIL-E-23765/1: MIL-70S-3
- CWB W48-01: ER49S-3
- ABS

## Storage

Welding wire should be stored in a dry, enclosed environment and in its originally sealed package.

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## Typical Mechanical Properties (as welded)

Certified As	TENSILE STRENGTH PSI	YIELD STRENGTH PSI	MINIMUM ELONGATION %	CVN IMPACT VALUES @ 0° F
NS Plus -101	77,100	61,700	29	90 ft-lbf
NS Plus 101 CopperFree™	79,900	66,200	28	68 ft-lbf
<b>AWS MINIMUM</b>	<b>70,000</b>	<b>58,000</b>	<b>22</b>	<b>20 ft-lbf</b>

Typically conducted with CO2 shielding gas. Wire performance data available upon request

## Typical Wire Chemistry Percentages (as required per AWS)

Certified As	C	Mn	Si	P	S	Cu	Ni	Cr	Mo	V
NS Plus® -101 Typ.	0.09	1.17	0.59	0.009	0.009	0.16	0.04	0.04	0.012	0.005
NS 101 CopperFree™ Typ.	0.09	1.17	0.60	0.012	0.014	0.07	0.06	0.07	0.008	0.005
<b>AWS A5.18/A5.18M</b>	<b>0.06/0.15</b>	<b>0.90/1.40</b>	<b>0.45/0.70</b>	<b>0.025 (max.)</b>	<b>0.035 (max.)</b>	<b>0.50 (max.)</b>	<b>0.15 (max.)</b>	<b>0.15 (max.)</b>	<b>0.15 (max.)</b>	<b>0.03 (max.)</b>
<b>AWS A5.17/A5.17M</b>	<b>0.06/0.16</b>	<b>0.90/1.40</b>	<b>0.35/0.75</b>	<b>0.030 (max.)</b>	<b>0.030 (max.)</b>	<b>0.35 (max.)</b>	-	-	-	-



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