

Silver-Glide™ NS-101 CopperFree™ Welding Wire

AWS ER70S-3, EM13K



Silver-Glide™ NS-101 CopperFree™ Welding Wire is a premium copper-free mild steel solid filler metal designed to produce maximum quality welds from ER70S-3 and EM13K wire.

It provides excellent arc starts, stability, and feedability while producing minimal spatter with no copper flaking and moderate de-oxidizers. Manganese and silicon content are carefully balanced to ensure 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
- Suitable for elevated-temperature applications

Welding Positions

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

Shielding Gas Blends

- 100% CO₂
- 75-95% Argon/Balance CO₂
- 95-98% Argon/Balance O₂
- Flow rate of 35-50 CFH

Applications

- Agricultural Equipment
- Auto Body
- General Fabrication
- Pipe Welding

Specifications

Meets or Exceeds:

- AWS A5.18/A5.18M: ER70S-3
- AWS A5.17: EM13K
- ASME SFA-A5.18: ER70S-3
- CWB W48: B-G 49A 2 C S3
- ABS

Storage

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



3602 North Perkins Road
Stillwater, OK 74075
Customer Service: 1-800-777-1618
www.NSARC.com



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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
AWS MINIMUM	70,000	58,000	22	20 ft-lbf

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	0.014	0.014	0.07	0.06	0.07	0.008	0.005
AWS A5.18/A5.18M	0.06/0.15	0.90/1.40	0.45/0.70	0.035 (max.)	0.035 (max.)	0.50 (max.)	0.15 (max.)	0.15 (max.)	0.15 (max.)	0.03 (max.)
AWS A5.17/A5.17M	0.06/0.16	0.90/1.40	0.35/0.75	0.030 (max.)	0.030 (max.)	0.35 (max.)	-	-	-	-



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