

SuperArc® Orbital TIG L-52 N

AWS ER70S-2 • Mild Steel

Typical Applications

- ▶ Nuclear power plant construction and maintenance
- ▶ Power and process industry related piping
- ▶ Medium to heavy mill scale base material
- ▶ Robotic or hard automation

ASME IX Qualification

ASME IX Qualification: QW432 F-No 6,
QW442 A-No 1

Conformances

AWS A5.18/A5.18M: 2005: ER70S-2
ASME SFA-A5.18: ER70S-2

Welding Positions

All

Key Features

- ▶ Q2 Lot® - Certificate showing actual wire composition available online
- ▶ Available as Batch Managed Inventory
- ▶ “N” Designator - design modified to meet properties after stress relief
- ▶ A PLW product which has been treated to minimize weld defects that can be seen in the use of MIG wires for the automatic TIG process
- ▶ Provides a consistent and exceptionally stable arc for automatic TIG welding
- ▶ Contains zirconium, titanium, and aluminum in addition to silicon and manganese
- ▶ Produces x-ray quality welds over most surface conditions
- ▶ Recommended for TIG welding on all grades of steel
- ▶ Excellent choice for PWHT applications
- ▶ Each spool is identified with AWS classification and LOT number

DIAMETERS / PACKAGING

Diameter in (mm)	2 lb (1 kg) Plastic Spool 8 lb (3.6 kg) Master Carton	10 lb (4.5 kg) Plastic Spool
0.035 (0.9)	ED033947	ED033948

WIRE COMPOSITION – As Required per AWS A5.18/A5.18M: 2005

	%C	%Mn	%S	%Si	%P	%Cu	%Cr
Requirements - AWS ER70S-2	0.07 max.	0.90-1.40	0.035 max.	0.40-0.70	0.0025 max.	0.50 max.	(1)
Typical Results ⁽²⁾	0.04	1.08	0.005	0.55	0.0003	0.20	0.08
	%Ni	%Mo	%V	%Al	%Ti	%Zr	
Requirements - AWS ER70S-2	(1)	(1)	(1)	0.05-0.15	0.05-0.15	0.02-0.12	
Typical Results ⁽²⁾	0.08	0.08	< 0.002	0.08	0.10	0.07	

⁽¹⁾Typical all weld metal. ⁽²⁾Measured with 0.2% offset. ⁽³⁾See test results disclaimer on pg. 12. ⁽⁴⁾Copper due to any coating on the electrode plus the copper content of the filler metal itself, shall not exceed the stated 0.50% max. ⁽⁵⁾CTWD (Contact Tip to Work Distance). Subtract 1/4 in (6.4 mm) to calculate Electrical Stickout. ⁽⁶⁾Procedures in the shaded areas are procedures for short circuiting mode using 75% Argon, 25% CO₂. NOTE: For 100% CO₂ procedures, add 1 to 2 volts for short circuit transfer and 2 to 3 volts for globular transfer.