Lincoln® ER309/309L N

Stainless Steel • AWS ER309/ER309L

Key Features

- Q2 Lot® - Certificate showing actual wire composition and calculated ferrite number (FN) available online
- Available as Batch Managed Inventory
- "N" Designator - cobalt restriction of 0.05% max
- Use for welding dissimilar alloys in wrought or cast form
- Meets the low cobalt levels typically required in the nuclear industry
- Occasionally used for welding "18-8" base metals when severe corrosion conditions exist or dissimilar metals
- 0.03% carbon content increases resistance to intergranular corrosion
- Prior to using this material for ASME Boiler and Pressure Vessel Code Section III applications, please contact the Lincoln Electric Specials Department to receive a Certified Material Test Report (CMTR) which meets all requirements of NCA-3860
- Product is marked every 4 in. (101.6 mm) with AWS classification and LOT number for easy identification

Typical Applications

- Nuclear power plant components, maintenance and construction
- Sheet metal on the corresponding stainless steel base metals
- High pressure piping and tubing
- Pressure Vessels

ASME IX Qualification

ASME IX Qualification:	QW432 F-No 6, QW442 A-No 8

Conformances

AWS A5.9/A5.9M: 2006:	ER309, ER309L
ASME SFA-A5.9:	ER309, ER309L

Welding Positions

All

DIAMETERS / PACKAGING

Diameter in (mm)	10 lb (4.5 kg) Plastic Tube 30 lb (13.6 kg) Master
3/32 (2.4)	ED033856
1/8 (3.2)	ED033857

WIRE COMPOSITION – *As Required per AWS A5.9/A5.9M: 2006*

	%C	%Cr	%Ni	%Mo	%Mn
Requirements - AWS ER309L	0.03[2] max.	23.0 - 25.0	12.0 - 14.0	0.75 max.	1.0 - 2.5
Test Results[1]	0.02	23.7	13.9	0.04	1.8
	%Si	%P	%S	%Cu	Total Others
Requirements - AWS ER309L	0.30 - 0.65	0.03 max.	0.03 max.	0.75 max.	0.50 max.
Test Results[1]	0.51	0.02	0.01	0.05	0.06

IMPORTANT: SPECIAL VENTILATION AND/OR EXHAUST REQUIRED

Fumes from the normal use of some welding products can contain significant quantities of components - such as chromium and manganese - which can lower the 5.0 mg/m^3 maximum exposure guideline for general welding fume. BEFORE USE, READ AND UNDERSTAND THE MATERIAL SAFETY DATA SHEET (MSDS) FOR THIS PRODUCT AND SPECIFIC INFORMATION PRINTED ON THE PRODUCT CONTAINER.

[1]See test results disclaimer on pg. 12. [2]Requirements for ER309 is 0.12% max. carbon.