Lincolnweld® P2007™ & 316/316L

Stainless Steel • AWS ER316/ER316L

Key Features

- Designed to weld stainless steels for higher pitting corrosion resistance
- Produces sound welds with excellent slag removal and bead appearance
- Designed combination to recover nearly all of the wire chromium in the deposit
- Balanced ferrite level for high resistance to hot cracking
- Low carbon content to reduce risk of sensitization of the weld

Typical Applications

- Nuclear reactor vessels and other components

ASME IX Qualification

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

DIAMETERS / PACKAGING - FLUX

50 lb (22.7 kg) Plastic Bag
ED033159

DIAMETERS / PACKAGING - WIRE

Diameter in (mm)	60 lb (27.2 kg) Coil
5/64 (2.0)	ED033155
3/32 (2.4)	ED033156
1/8 (3.2)	ED033157
5/32 (4.0)	ED033158

MECHANICAL PROPERTIES[1] – *As Required per AWS A5.9/A5.9M: 2006*

	Yield Strength[2] MPa (ksi)	Tensile Strength MPa (ksi)	Elongation %	Ferrite Number
Requirements - AWS ER316, ER316L	Not Specified			
Test Results[3, 5] - As-Welded	380 (55)	550 (80)	42	9

WIRE COMPOSITION[1] – *As Required per AWS A5.9/A5.9M: 2006*

	%C[4]	%Cr	%Ni	%Mo	%Mn	%Si
Requirements - AWS ER316L	0.03 max.	18.0 - 20.0	11.0 - 14.0	2.0 - 3.0	1.0 - 2.5	0.30 - 0.65
Typical Performance[3]						
As-Welded	0.02	19.0	11.9	2.2	1.8	0.50
All Weld Metal Composition[5]	0.02	17.8 - 18.4	11.9	2.2	1.6 - 2.0	0.50 - 0.80

TYPICAL OPERATING PROCEDURES

Diameter - in (mm)	Wire Feed Speed - m/min (in/min)	Voltage (volts)	Current (amps)
5/64 (2.0)	2.0-6.1 (80-240)	24-30	190-500
3/32 (2.4)	1.5-5.3 (60-210)	26-32	195-575
1/8 (3.2)	0.9-2.8 (35-110)	28-34	200-700
5/32 (4.0)	0.8-1.9 (30-75)	30-36	320-775

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]Typical all weld metal. [2]Measured with 0.2% offset. [3]See test results disclaimer on pg. 12. [4]AWS Requirement for ER316 is 0.08% max. carbon.
[5]Results shown correspond with the recommended Lincolnweld® and Blue Max® fluxes listed above, but not required per AWS A5.9-93.