Select ER308L

Stainless Steel / Gas Shielded / Solid

FEATURES

- Low carbon (C), < 0.03 wt%, minimizes carbide precipitation (sensitization) which makes the weld metal more resistant to intergranular corrosion.
- Lower silicon (Si) content compared to high Si grades of similar composition increases resistance to crack sensitivity.
- Unique manufacturing techniques provide enhanced arc stability and stable feeding.
- Applications for this alloy type include welding austenitic alloys of similar composition, 301, 302, 304, 304L, 308, and 308L. These alloys are commonly found in chemical, paper, textile, food service equipment, and pharmaceutical industries.

CONFORMANCES

AWS A5.9   ER308

                                                                                    ER308L

DIAMETERS (in (mm))

0.035 (0.9), 0.040 (1.0), 0.045 (1.2), 1/16 (1.6)

POSITIONS

SHIELDING GAS

Ar + 0.5-3% CO_2, Ar + 0.5-3% O_2
Flow Rate: 40 - 50 CFH

POLARITY

Direct Current Electrode Positive (DCEP)

TYPICAL WIRE CHEMISTRY (WT%)

Shielding Gas	C	Cr	Cu	Mn	Mo	Ni	P	S	Si
N/A	0.02	19.90	0.12	1.75	0.13	9.70	0.023	0.008	0.45

Ferrite	Result
WRC 1992	11

TYPICAL MECHANICAL PROPERTIES

Shielding Gas	Tensile Strength ksi (MPa)	Yield Strength ksi (MPa)	Elongation (%)	Weld Condition	PWHT Temp
98%Ar / 2%O2	85 (586)	60 (414)	36	As-Welded	-

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RECOMMENDED WELDING PARAMETERS **

Diameter in (mm)	Shielding Gas	Position	WFS* in/min (m/min)	Amps	Volts	CTWD* in (mm)
0.035 (0.9 mm)	98% Ar/2% O2	Flat & Horizontal	450 (11.4)	170	21	1/2 (13)
		Flat & Horizontal	515 (13.1)	185	23	1/2 (13)
		Flat & Horizontal	560 (14.2)	200	24	1/2 - 5/8 (13 - 16)
		Flat & Horizontal	655 (16.6)	205	26	1/2 - 5/8 (13 - 16)
0.040 (1.0 mm)	98% Ar/2% O2	Flat & Horizontal	390 (9.9)	195	21	1/2 - 5/8 (13 - 16)
		Flat & Horizontal	445 (11.3)	210	23	1/2 - 5/8 (13 - 16)
		Flat & Horizontal	490 (12.4)	225	24	5/8 (16)
		Flat & Horizontal	575 (14.6)	240	26	5/8 (16)
0.045 (1.2 mm)	98% Ar/2% O2	Flat & Horizontal	325 (8.3)	220	21	1/2 - 5/8 (13 - 16)
		Flat & Horizontal	375 (9.5)	235	23	1/2 - 5/8 (13 - 16)
		Flat & Horizontal	420 (10.7)	250	24	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	500 (12.7)	270	26	5/8 - 3/4 (16 - 19)
1/16 (1.6 mm)	98% Ar/2% O2	Flat & Horizontal	225 (5.7)	265	21	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	300 (7.6)	305	23	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	330 (8.4)	335	23	3/4 - 1 (19 - 25)
		Flat & Horizontal	375 (9.5)	350	26	3/4 - 1 (19 - 25)

* WFS = Wire Feed Speed, CTWD = Contact Tip To Work Distance
**The parameters listed are recommended starting points of operation and the ranges for amperage, wfs, and voltage could be extended based on fitness for application. For products with "all-position" capability, as determined and listed in classification, the position recommendation can be determined based on operator skill and material thickness and isn't limited to the listing.

PACKAGING (lbs (kgs))

33 (15) Spools, 60 (27.2) Coils, 500 (226.8) Round Drum, 800 (362.9) Hex Drum, 900 (408.2) Hex Drum

*Some packaging options may not be available depending on diameter and product. Special package options may be available upon request.

STORAGE AND HANDLING

All products should be stored in original packaging, in dry conditions and handled with care. For more information refer to our website.

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