

Select ER409Cb

Stainless Steel / Gas Shielded / Solid

PRODUCT DATA SHEET

FEATURES

- Columbium (Cb), also known as niobium (Nb), is used to prevent weld metal sensitization.
- Nb stabilization promotes enhanced weldability on components where cleanliness can be an issue (i.e. excessive debris, oil, etc.).
- Unique manufacturing techniques provide enhanced arc stability and stable feeding.
- Applications for this alloy type include ferritic stainless steel exhaust system components, converters, mufflers, and tubing of similar composition where heat and corrosion resistance are necessary.

CONFORMANCES

AWS A5.9

ER409Nb

DIAMETERS (in [mm])

0.035 (0.9), 0.040 (1.0), 0.045 (1.2)

POSITIONS



SHIELDING GAS

Ar + 0.5-5% CO₂, Ar + 0.5-3% O₂

Flow Rate: 40 - 50 CFH

POLARITY

Direct Current Electrode Positive (DCEP)

TYPICAL WIRE CHEMISTRY (WT%)

Shielding Gas	C	Cr	Cu	Mn	Mo	Nb	Ni	P	S	Si
Argon	0.03	11.50	0.02	0.50	0.03	0.51	0.30	0.020	0.002	0.52



Revision: 1/17/2025

Notice: Be sure to follow all your employers safety practices, policies and procedures when using this product. Refer to CSA W117.2 and ANSI Z49.1 Safety in Welding, Cutting and Allied Processes for further information and the manufactures SDS sheet. The results reported are based upon testing of the product under controlled laboratory conditions in accordance with American Welding Society Standards. Actual use of the product may produce different results due to varying conditions. An example of such conditions would be electrode size, plate chemistry, environment, weldment design, fabrication methods, welding procedure and service requirements. Thus the results are not guarantees for use in the field. The manufacturer disclaims any warranty of merchantability or fitness for any particular purpose with respect to its products.

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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% O ₂	Overhead	315 (8.0)	135	20	1/2 (13)
		Overhead	500 (12.7)	170	22	1/2 (13)
		Overhead	650 (16.5)	220	23	5/8 - 3/4 (16 - 19)
		Overhead	780 (19.8)	250	25	5/8 - 3/4 (16 - 19)
0.040 (1.0 mm)	98% Ar/2% O ₂	Overhead	295 (7.5)	190	20	1/2 - 5/8 (13 - 16)
		Overhead	375 (9.5)	220	21	1/2 - 5/8 (13 - 16)
		Overhead	525 (13.3)	255	23	5/8 - 3/4 (16 - 19)
		Overhead	630 (16.0)	280	25	5/8 - 3/4 (16 - 19)
0.045 (1.2 mm)	98% Ar/2% O ₂	Overhead	280 (7.1)	225	20	5/8 (16)
		Overhead	350 (8.9)	245	21	5/8 (16)
		Overhead	400 (10.2)	275	23	5/8 - 3/4 (16 - 19)
		Overhead	475 (12.1)	300	25	5/8 - 3/4 (16 - 19)

* 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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