



STAINLESS STEEL BARE WIRE DATA SHEET

executive 409Cb

DESCRIPTION

Executive 409Cb is a copper coated, ferritic stainless steel welding wire which is used to weld type 409 and 409Ti base materials. Addition of columbium leads to preferential reaction with carbon, saving chromium from forming carbides. This improves corrosion resistance, increase strength at high temperatures, and promotes ferritic micro-structure. Coating technology creates a smooth and uniform copper layer on the wire surface that remarkably improves the weldability of the wire.

ADVANTAGES OF COPPER COATING

- Wide operating range of welding conditions with less spatter
- Good wetting, flat bead shape, smooth appearance and less oxidation darkening of the bead
- Improved contact tip and conduit lifetime
- Better ductility of the weld

CHEMISTRY RANGE

C	Cr	Ni	Mo	Mn	Si	P	S	Cu	Nb ^a
0.08	10.5-13.5	0.6	0.50	0.8	1.0	0.04	0.03	0.75	10xC min – .75 max

*single values shown are maximum percentages

^a Nb may be reported as Nb + Ta

WELDING PARAMETERS

PROCESS	SIZE	VOLTS	AMPS	SPEED OF WELDING / GAS FLOW	SHIELDING GAS / FLUX
SAW	.093	29 - 32	300 - 350	20 - 30 IPM (500 to 750mm)/min	Record IN Flux
	.125	29 - 32	400 - 550	20 - 30 IPM (500 to 750mm)/min	Record IN Flux
	.156	29 - 32	500 - 650	20 - 30 IPM (500 to 750mm)/min	Record IN Flux
GMAW	.035	29 - 33	160 - 180	30 to 50 CFH	98/99% Ar + 2/1% O ₂
	.045	29 - 33	180 - 220	30 to 50 CFH	or
	.062	29 - 33	210 - 250	30 to 50 CFH	97% Ar + 3% CO ₂
GTAW	.093	Direct Current; Electrode –		30 to 40 CFH	100% Ar

MECHANICAL PROPERTIES

Tensile Strength: 65,000 PSI minimum 450 MPA
Yield Strength: 50,500 PSI 350 MPA
Elongation: 20%

CLASSIFICATION

Wire chemistry has been optimized for best performance and conforms to AWS/SFA 5.9, Class **ER409Cb**, and is certified by the Canadian Welding Bureau to AWS A5.9, and ISO 14343B, Class ES409Cb.