



BLUESHIELD™ LA C-6LF

Carbon Steel

STANDARDS

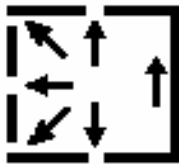
CSA W48-01/W48-06, Class E491C-6-H4, E491C-6M-H4
 AWS A5.18-95/ASME SFA 5.18, Class E70C-6-H4, E70C-6M-H4

DESCRIPTION & APPLICATIONS

- An advanced formula, carbon steel metal-cored wire yielding lower fume generation than conventional metal-cored wires. This wire can be used for semi-automatic or robotic welding applications requiring weld-metal mechanical properties down to -30°C (-20°F).
- Welding mild and medium-carbon steels.
- Welding corresponding steel grades: A36, A106, A285.
- Welding structural steel, plate, automotive components, shipbuilding, piping and tanks.

THE BLUESHIELD™ ADVANTAGE

- Lower fume generation
- Virtually slag-free weld deposits
- Excellent operator appeal – flow characteristics and bead geometry
- Versatility – excellent welding performance with various shielding gases (CO₂, Ar/CO₂ and Tri-gas mixtures)

TYPICAL WELDING PARAMETERS


Diameter		Volts V	Amps A	Wire feed speed ± 5%		Gas	Flow		Electrode Extension mm - in
mm	in			cm/min	in/min		l/min	cfh	
1.2	0.045	17-32	130-350	356-1397	140-550	ARCAL™ 211 ARCAL™ 14	20	45	16 – 5/8
1.4	0.052	24-32	250-400	635-1232	250-485		20	45	19 – 3/4
1.6	1/16	28-33	300-450	635-1168	250-460		24	50	19 – 3/4

RECOMMENDED SHIELDING GASES: ARCAL™ 211 and ARCAL™ 14 are preferred. BLUESHIELD™ 8, CO₂ or other Ar/ CO₂ blends can also be used.

TYPICAL FUME GENERATION*: 0.10 - 0.50 g/min

TYPICAL DIFFUSABLE HYDROGEN*: 4 ml/100 g

TYPICAL CHEMISTRY*

Weight %	C	Mn	Si	P	S	Ni	Cr	Mo	V	Cu
ARCAL™ 211	0.03	1.51	0.73	0.009	0.010	0.02	0.03	<0.01	<0.01	0.04
ARCAL™ 14	0.03	1.66	0.82	0.009	0.010	0.02	0.03	<0.01	<0.01	0.04
95% Ar – 5% CO ₂	0.03	1.32	0.55	0.012	0.009	0.03	0.04	<0.01	<0.01	0.04
CO ₂	0.04	1.25	0.51	0.009	0.011	0.02	0.03	<0.01	<0.01	0.04

TYPICAL MECHANICAL PROPERTIES*

	As Welded			
	ARCAL™ 211	ARCAL™ 14	95% Ar – 5% CO ₂	CO ₂
Tensile Strength MPa (ksi)	557 (80.8)	595 (86.3)	509 (73.8)	495 (71.8)
Yield Strength MPa (ksi)	459 (66.6)	502 (72.8)	408 (59.2)	406 (58.8)
Elongation in 50 mm – 2 in (%)	31	30	32	28
Impact (Charpy V-notch) @ -30°C (-20°F)	63 J (46 ft-lb)	39 J (29 ft-lb)	109 J (80 ft-lb)	69 J (51 ft-lb)

* Actual welding procedure and conditions can impact results

PACKAGING

Diameter		Packaging			Item Number
mm	in	kg	lb		
1.2	0.045	20.4	45	Spool	BLU-37965063
		27.2	60	Coil	BLU-37965033
		226.8	500	Reel	BLU-37965043
		226.8	500	Drum	BLU-37965053
1.4	0.052	20.4	45	Spool	BLU-37965064
		27.2	60	Coil	BLU-37965034
		226.8	500	Reel	BLU-37965054
		226.8	500	Drum	BLU-37965054
1.6	1/16	20.4	45	Spool	BLU-37965065
		27.2	60	Coil	BLU-37965035
		226.8	500	Reel	BLU-37965045
		226.8	500	Drum	BLU-37965055