BLUESHIELD™ LA C-6

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

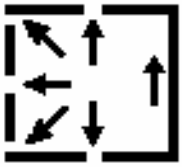
DESCRIPTION & APPLICATIONS

- Excellent general-purpose carbon steel metal-cored wire for either semi-automatic or robotic welding applications requiring weld-metal mechanical properties down to -30°C (-20°F). This wire can also be used as a suitable alternative for ER70S-6 gas metal arc wire.
- 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

- Virtually slag free weld deposits
- Excellent operator appeal – flow characteristics and bead geometry
- Versatility – excellent welding performance with various shielding gases (CO_2, Ar/CO_2 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	
0.9	0.035	15-30	100-250	787-1980	310-780	ARCAL™ 211 ARCAL™ 14	19	40	12 – 1/2
1.2	0.045	17-32	130-350	356-1397	140-550		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
2.0	5/64	29-34	375-550	457-890	180-350		24	50	25 – 1
2.4	3/32	30-36	400-600	318-648	125-255		26	55	25 – 1

RECOMMENDED SHIELDING GASES: ARCAL™ 211 and ARCAL™ 14 are preferred. BLUESHIELD™ 23, CO_2 or other Ar/ CO_2 blends can also be used.

TYPICAL DIFFUSABLE HYDROGEN*: 4 ml/100 g

TYPICAL CHEMISTRY*

Weight%	C	Mn	Si	P	S	Ni	Cr	Mo	V	Cu
ARCAL™ 211	0.04	1.56	0.87	0.009	0.009	0.03	0.03	<0.01	<0.01	0.06
ARCAL™ 14	0.04	1.68	0.90	0.008	0.010	0.03	0.03	<0.01	<0.01	0.06
BLUESHIELD™ 23	0.03	1.40	0.78	0.010	0.012	0.02	0.05	<0.01	<0.01	0.06
95% Ar – 5% CO_2	0.04	1.63	0.89	0.007	0.010	0.03	0.04	<0.01	<0.01	0.07
CO_2	0.06	1.37	0.62	0.009	0.008	0.02	0.03	<0.01	<0.01	0.06

TYPICAL MECHANICAL PROPERTIES*

	As welded				
	ARCAL™ 211	ARCAL™ 14	BLUESHIELD™ 23	95% Ar – 5% CO_2	CO_2
Tensile Strength MPa (ksi)	614 (89.1)	618 (89.6)	607 (88)	590 (85.5)	549 (79.6)
Yield Strength MPa (ksi)	521 (75.6)	525 (76.1)	517 (75)	493 (71.5)	452 (65.6)
Elongation in 50 mm – 2 in (%)	28	27	27	29	33
Impact (Charpy V-notch) @ -30°C (-20°F)	102 J (76 ft-lb)	73 J (54 ft-lb)	69 J (51 ft-lb)	91 J (67 ft-lb)	54 J (40 ft-lb)

* Actual welding procedure and conditions can impact results

PACKAGING

Diameter		Small Packaging			Item Number
mm	in	kg	lb		
0.9	0.035	11.3	25	Spool	BLU-37960412
1.2	0.045	20.4	45	Spool	BLU-37960463
1.4	0.052				BLU-37960464
1.6	1/16				BLU-37960465
1.2	0.045	27.2	60	Coil	BLU-37960433
1.4	0.052				BLU-37960434
1.6	1/16				BLU-37960435
2.0	5/64				BLU-37960436
2.4	3/32				BLU-37960437

Diameter		Large Packaging			Item Number
mm	in	kg	lb		
1.2	0.045	226.8	500	Reel	BLU-37960443
1.4	0.052				BLU-37960444
1.6	0.062				BLU-37960445
0.9	0.035	226.8	500	Drum	BLU-37960452
1.2	0.045				BLU-37960453
1.4	0.052				BLU-37960454
1.6	0.062				BLU-37960455
1.2	0.045	362.8	800	Drum	BLU-37960453HEX
1.4	0.052				BLU-37960454HEX
1.6	1/16				BLU-37960455HEX
2.0	5/64				BLU-37960456HEX

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