BLUESHIELD™ LA T91 LF

Carbon Steel

STANDARDS

CSA W48-01/W48-06, Class E491T-1-H8/T-1M-H8, E491T-9-H8/T-9M-H8
AWS A5.20-95/ASME SFA 5.20, Class E71T-1-H8/T-1M-H8, E71T-9-H8/T-9M-H8

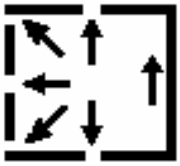
DESCRIPTION & APPLICATIONS

- A superior all position flux-cored wire designed to deliver lower fume generation rates (emissions) while maintaining sound weld-metal mechanical properties down to -30 0C (-20 0F) when using, CO_2, Ar/CO_2 or ARCAL™ 211 shielding gas.
- Welding mild and medium carbon steels.
- Welding corresponding steel grades: A36, A106, A285, A350, A515, A516 and S 375 – S 420.
- Welding structural steel, plate, piping, tanks, boilers, pressure vessels and naval construction.

THE *BLUESHIELD*™ ADVANTAGE

- Lower fume emissions – safer work environment.
- Sound low temperature mechanical properties.
- Superior all-position welding characteristics.

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	23-29	130-250	737-1930	290-760	ARCAL™ 211 BLUESHIELD™ 8	20	45	16 – 5/8
1.2	0.045	23-29	130-320	356-1524	140-600		20	45	19 – 3/4
1.4	0.052	24-30	140-380	305-1397	120-550		20	45	19 – 3/4
1.6	0.062	24-32	150-400	254-1168	100-460		20	45	19 – 3/4

RECOMMENDED SHIELDING GASES: ARCAL™ 211 is the preferred. BLUESHIELD™ 7, 8 or CO_2 may also be used as alternate shielding gases

TYPICAL FUME GENERATION*: 0.30 – 0.80 g/min

TYPICAL DIFFUSABLE HYDROGEN*: 8 ml/100 g

TYPICAL CHEMISTRY

Weight %	C	Mn	Si	P	S	Ni	Cr	Mo	V	Cu
ARCAL™ 211	0.06	1.33	0.44	0.008	0.008	0.03	0.04	<0.01	<0.01	0.05
BLUESHIELD™ 7	0.06	1.25	0.40	0.008	0.008	0.03	0.04	<0.01	<0.01	0.04
BLUESHIELD™ 8	0.06	1.64	0.56	0.008	0.007	0.02	0.03	<0.01	<0.01	0.04
CO_2	0.06	1.06	0.29	0.008	0.008	0.02	0.04	<0.01	<0.01	0.05

TYPICAL MECHANICAL PROPERTIES*

	As Welded			
	ARCAL™ 211	BLUESHIELD™ 8	BLUESHIELD™ 7	CO_2
Tensile Strength Mpa (ksi)	617 (89.4)	629 (91.3)	626 (90.8)	528 (76.6)
Yield Strength Mpa (ksi)	548 (79.4)	519 (75.3)	561 (81.3)	470 (68.2)
Elongation in 50 mm – 2 in (%)	26	25	26	30
KV (Average) @ -30°C (-20°F)	112 J (83 ft-lb)	90 J (66 ft-lb)	100 J (74 ft-lb)	83 J (61 ft-lb)

* Actual welding procedure and conditions can impact results

PACKAGING

Diameter		Packaging			Item Number
mm	in	kg	lb		
0.9	0.035	15	33	Spool	BLU-37963172
1.2	0.045				BLU-37963173
1.4	0.052				BLU-37963174
1.6	1/16				BLU-37963175
1.2	0.045	27.2	60	Coil	BLU-37963133
1.4	0.052				BLU-37963134
1.6	1/16				BLU-37963135
1.2	0.045	280	616	Reel	BLU-37963143
1.4	0.052				BLU-37963144
1.6	1/16				BLU-37963145
1.2	0.045	226.8	500	Reel	BLU-37963153
1.4	0.052				BLU-37963154
1.6	1/16				BLU-37963155

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