



# BLUESHIELD™ LA T91

## 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

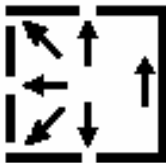
### DESCRIPTION & APPLICATIONS

- A good general-purpose all-position flux-cored wire designed to yield weld-metal mechanical properties down to -30°C (-20°F) when using CO<sub>2</sub>, Ar/CO<sub>2</sub> or ARCAL™ 211 shielding gas
- Welding mild and medium carbon steels
- Welding corresponding steel grades: A36, A53, A106, A108 and A109
- Welding structural steel, farm machinery, construction equipment and general carbon steel fabrication

### THE BLUESHIELD™ ADVANTAGE

- High level of deoxidizers – promotes porosity-free welds
- Deep penetrating arc – reduces lack of fusion problems
- Versatility – ease of use in a variety of applications

### 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	23-29	130-320	356-1524	140-600	ARCAL™ 211 BLUESHIELD™ 8 CO <sub>2</sub>	20	45	19 – 3/4
1.4	0.052	24-30	140-380	305-1397	120-550		20	45	19 – 3/4
1.6	1/16	24-32	150-400	254-1168	100-460		20	45	19 – 3/4

**RECOMMENDED SHIELDING GASES:** BLUESHIELD™ 8 or CO<sub>2</sub> is preferred. ARCAL™ 211 can be used as alternate shielding gases.

**TYPICAL DIFFUSABLE HYDROGEN\*:** 8 ml/100 g

### TYPICAL CHEMISTRY

Weight %	C	Mn	Si	P	S	Ni
ARCAL™ 211	0.06	1.49	0.54	0.006	0.009	-
BLUESHIELD™ 8	0.06	1.42	0.50	0.006	0.011	-
CO <sub>2</sub>	0.06	1.33	0.47	0.008	0.009	-

### TYPICAL MECHANICAL PROPERTIES\*

	As Welded		
	ARCAL™ 211	BLUESHIELD™ 8	CO <sub>2</sub>
<b>Tensile Strength MPa (ksi)</b>	597 (86.6)	582 (84.4)	580 (84.1)
<b>Yield Strength MPa (ksi)</b>	512 (74.3)	506 (73.4)	508 (73.6)
<b>Elongation in 50 mm – 2 in (%)</b>	26	28	29
<b>Impact (Charpy V-notch) @ -30°C (-20°F)</b>	49 J (36 ft-lb)	28 J (21 ft-lb)	55 J (41 ft-lb)

\* Actual welding procedure and conditions can impact results

### PACKAGING

Diameter		Packaging			Item Number
mm	in	kg	lb		
1.2	0.045	15	33	Spool	BLU-37971606
1.6	1/16				BLU-37971605
1.2	0.045	27.2	60	Coil	BLU-37971637
1.6	1/16				BLU-37971634
1.6	1/16	280	616	Reel	BLU-37971609
1.2	0.045	226.8	500	Drum	BLU-37960253
1.6	1/16				BLU-37960255