



# BLUESHIELD™ LA T91 PLUS

## 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/T-1M-H8, E71T-9/T-9M-H8

### DESCRIPTION & APPLICATIONS

- A highly efficient all-position flux-cored wire designed to yield weld-metal mechanical properties down to -30°C (-20°F) when using CO<sub>2</sub> or Ar/CO<sub>2</sub> shielding gas mixtures containing up to 80% argon
- Welding mild and medium carbon steels
- Welding corresponding steel grades: A36, A53, A106, A108 and A109
- Welding structural members, rolling stock, construction equipment and general carbon steel fabrication

### THE BLUESHIELD™ ADVANTAGE

- Minimal spatter levels – easy cleanup
- 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	24-30	130-320	356-1524	140-600	BLUESHIELD™ 8 CO <sub>2</sub>	20	45	19 – 3/4
1.4	0.052	25-32	140-380	305-1397	120-550		20	45	19 – 3/4
1.6	0.062	27-34	150-400	254-1168	100-460		20	45	19 – 3/4

### RECOMMENDED SHIELDING GASES:

CO<sub>2</sub> is preferred. BLUESHIELD™ 8 can be used as alternate shielding gases.

### TYPICAL DIFFUSABLE HYDROGEN\*:

8 ml/100 g

### TYPICAL CHEMISTRY

Weight %	C	Mn	Si	P	S	Ni
BLUESHIELD™ 8	0.05	1.40	0.55	0.008	0.008	-
CO <sub>2</sub>	0.05	1.23	0.45	0.008	0.009	-

### TYPICAL MECHANICAL PROPERTIES\*

	As Welded	
	BLUESHIELD™ 8	CO <sub>2</sub>
Tensile Strength MPa (ksi)	614 (89)	577 (83.6)
Yield Strength MPa (ksi)	537 (77.9)	493 (71.5)
Elongation in 50 mm – 2 in (%)	25	27
Impact (Charpy V-notch) @ -30°C (-20°F)	48 J (36 ft-lb)	27 J (20ft-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-37972106
1.6	1/16				BLU-37972105
1.2	0.045	27.2	60	Coil	BLU-37972133
1.6	1/16				BLU-37972135
1.6	1/16	280	616	Reel	BLU-37972109
1.2	0.045	226.8	500	Drum	BLU-37963553
1.6	1/16				BLU-37963555