

# BLUESHIELD™ LA 18 PLUS LMP

## Low-Hydrogen Electrode

### STANDARDS

CSA W48-01-M/W48-06, Class E4918-1-H4  
AWS A5.1, Class E7018-1

### DESCRIPTION & APPLICATIONS

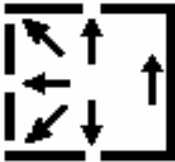
This electrode has a special low-moisture pick-up (LMP) electrode coating. It is a basic electrode (low hydrogen) developed to meet the most severe impact requirements of CSA for all position welding. BLUESHIELD™ LA 18 PLUS LMP possesses the same operating characteristics as BLUESHIELD™ LA 7018 yet with a special (LMP) low moisture pick-up coating. Applications requiring 27 J (20 ft-lb) at a temperature of -45°C (-50°F) depend on such an electrode for service reliability. Also used for welding steels requiring improved weld metal toughness (Charpy impacts) down to -45°C (-50°F), combined with a low-hydrogen weld deposit.

- Include boiler and pressure vessel work, structural steel fabrication, pressure piping and maintenance.

### THE BLUESHIELD™ ADVANTAGE

- Reduces the tendency of moisture pick-up
- May permit reduced preheat temperatures
- Low-hydrogen weld deposit reduces the possibility of underbead "cold" cracking

### TYPICAL WELDING PARAMETERS



- All-position.
- Either DC electrode positive (DCEP) or AC current can be used.
- To obtain the best mechanical properties, maintain the shortest possible arc length while using the drag technique and stringer beads with little or no weaving.

Diameter		Amperage Range	Optimum Current
mm	in		
2.5	3/32	75 – 110	90
3.2	1/8	100 – 160	130
4.0	5/32	150 – 220	175
5.0	3/16	215 – 300	250

### TYPICAL CHEMISTRY

C	Cr	Ni	Mo	P	S	Mn	Si	V	Mn + Ni + Cr + Mo + V
0.05	0.03	0.02	0.005	0.011	0.008	1.58	0.43	0.003	1.64

### TYPICAL MECHANICAL PROPERTIES

	As Welded	
<b>Tensile Strength</b>	591 MPa	85.7 ksi
<b>Yield Strength</b>	504 MPa	73.1 ksi
<b>Elongation in 40 mm – 1.5 in</b>	30.7 %	30.7 %
<b>Impact (Charpy V-notch) Test Temperature</b>	-45°C	-50°F
<b>Energy</b>	125 J	93 ft-lb

\*Values of impact strength from weld deposits in the flat position according to CSA W48.1-M/W48-06 Standard.

### PACKAGING

Diameter		Length		Packaging		Item Number
mm	in	mm	in	kg	lb	
2.5	3/32	300	12	4 x 2.5	4 x 5.5	BLU-32972906
3.2	1/8	350	14	4 x 5	4 x 11	BLU-32972908
4.0	5/32	350	14	4 x 5	4 x 11	BLU-32972910
5.0	3/16	450	18	4 x 5	4 x 11	BLU-32972912