BLUESHIELD™ LA 7018

Low-Hydrogen Electrode

Standards	CSA W48, Class E4918-1-H4 AWS A5.1/ASME SFA 5.1, Class E7018-1-H4

Description & Applications

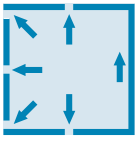
It is a premium low hydrogen all-position electrode with a basic coating (E7018-1) used on DC or AC current. Code quality welds are obtainable on higher strength steels with weld metal toughness properties (charpy impacts) down to -45°C (-50°F), coupled with a low hydrogen weld deposit.

- Typical applications for this electrode are boiler and pressure vessel work, structural fabrication, pressure piping, maintenance, or any application requiring a high-quality weld deposit with excellent mechanical properties.

The BLUESHIELD Advantage

- User-friendly electrode with its ease of operation, low spatter levels, and excellent appearance.
- The low volume of hydrogen that diffuses from the weld deposit considerably reduces the tendency to underbead (cold) cracking.
- Permits the welding of “difficult-to-weld” steels with less preheat than is required for non-basic type electrodes.
- Code quality welds (X-ray clear) are easily obtained with this electrode if proper procedures are followed.

Typical Welding Parameters



- Designed to operate with DC current electrode positive or AC in all positions.
- May be used with a stringer bead or a weaving technique.
- To obtain the best mechanical properties maintain the shortest arc possible including use of the drag technique and stringer beads with little or no weaving.
- To reduce the possibility of starting porosity strike the electrode ahead of the crater of the previously finished weld bead and quickly move back into the crater while reducing the arc length.

DIAMETER mm	DIAMETER in	AMPERAGE RANGE	OPTIMUM CURRENT
2.5	3/32	75 – 100	90
3.2	1/8	100 – 160	130
4.0	5/32	135 – 220	175
5.0	3/16	200 – 300	250
6.0	1/4	275 – 360	310

Typical Chemistry

C	Cr	Ni	Mo	P	S	Mn	Si	V	Mn + Ni + Cr + Mo + V
0.07	0.04	0.04	0.01	0.013	0.011	0.99	0.58	0.01	1.09

AIR LIQUIDE™

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Typical Mechanical Properties*

	AS WELDED	
TENSILE STRENGTH	561 MPa	81.4 ksi
YIELD STRENGTH	473 MPa	68.6 ksi
ELONGATION	32 %	32 %
IMPACT (Charpy V-notch) TEST TEMPERATURE ENERGY	 -45°C 108 J**	 -50°F 80 ft-lb**

**Actual welding positions and procedures can impact results.*

***Values of impact strength from weld deposits in the flat position according to CSA W48 Standard.*

Packaging

DIAMETER		LENGTH		PACKAGING		ITEM
mm	in	mm	in	kg	lb	NUMBER
2.5	3/32	300	12	4 x 2.5	4 x 5.5	**BLU-32971706**
3.2	1/8	350	14	4 x 5	4 x 11	**BLU-32971708**
4.0	5/32	350	14	4 x 5	4 x 11	**BLU-32971710**
4.0	5/32	450	18	4 x 5	4 x 11	**BLU-32971711**
5.0	3/16	450	18	4 x 5	4 x 11	**BLU-32971712**
6.0	1/4	450	18	4 x 5	4 x 11	**BLU-32971716**