



ER70S-2

Specification Compliance: AISI/AWS A5.18 & ASME SFA 5.18 ER 70S-2

Application: ER70S-2 is a triple deoxidized (Aluminum, Titanium, Zirconium) welding wire designed for welding over rust and mill scale.

Nominal Composition:

Carbon	0.07% max.	Copper	0.50 % max.	Manganese	0.90-1.40 %
Silicon	0.40-0.70%	Sulfur	0.035 % max.	Phosphorus	0.025 % max.
Nickel	0.15 % max.	Chromium	0.15 % max.	Vanadium	0.03% max.
Molybdenum	0.15 % max.	Titanium	0.05-.15 %	Zirconium	0.02-.12 %
Aluminum	0.05-.15 %	Iron	Balance		

Physical Properties:

Density lbs/cu in .283

Typical Mechanical Properties As Welded

Tensile Strength (psi)	78,000	Elongation in 2''	25%
Yield Strength (psi)	60,000		

*** Recommended Welding Parameters:**

GMAW(MIG) Parameters (DC Reverse Polarity) Electrode Positive Spray transfer:

<u>Wire Dia.</u>	<u>Amps</u>	<u>Volts</u>	<u>Argon/ 1-5% O2</u>	<u>Wire Feed ipm</u>
.023	85-170	23-27	25	360-620
.030	135-230	24-28	25	390-670
.035	165-300	24-28	30	360-520
.045	200-375	24-30	30-35	210-390
1/16	275-500	24-32	40	150-360
3/32	300-600	24-33	50	75-125

GTAW (Tig) Parameters (DCSP) 2 % Thoriated Tungsten Electrode negative

<u>Material</u>	<u>Tungsten dia</u>	<u>Filler Wire Size</u>	<u>Amps</u>	<u>Gas Cup</u>	<u>Argon(cfh)</u>
1/16''	1/16''	1/16''	100-140	3/8	20
3/32''	1/16''	1/16''	100-160	3/8	20
1/8''	3/32''	1/16''	125-200	7/16	20
3/16''	3/32''	3/32''	150-250	7/16	25
1/4''	1/8''	1/8''	150-250	1/2	25
3/8''	1/8''	1/8''	150-275	1/2	25
1/2''	1/8''	1/8''	150-300	1/2	25

*** All parameters are suggested as basic guidelines and will vary depending on joint design number of passes, and other factors.**

Notice: The results reported are based upon testing of the product under controlled laboratory conditions in accordance with American Welding Society Standards. Actual use of the product may produce different results due to varying conditions. An example of such conditions would be electrode size, plate chemistry, environment, weldment design, fabrication methods, welding procedure and service requirements. Thus the results are not guarantees for use in the field. The manufacturer disclaims any warranty of merchantability or fitness for any particular purpose with respect to its products.

Edmonton, AB Office
 8804 51 Ave
 Edmonton, AB T6E 5E8
 Phone: 780-468-1777
 Fax 780-468-1758

Chilliwack, BC Corporate
 Unit A, 44636 Yale Rd West
 Chilliwack, BC V2R 0G5
 Phone: 604-701-6533
 Fax 604-701-6559

Surrey, BC Office
 Unit 11, 13085 115 Ave
 Surrey, BC V3R 4S7
 Phone: 1-877-233-1378
 Fax: 604-701-6559

Saskatoon, SK Office
 Unit#8, 401 Pakwa Place
 Saskatoon, SK S7L 5Z9
 Phone: 306-974-9750
 Fax 306-974-9752

Prince George
 1557 South Lyon St
 Prince George, BC V2M 1T3
 Phone: 250-562-8922
 Fax: 250-562-8927