

Pipeliners® 70S-G

Mild & Low Alloy Steel Pipe • AWS ER70S-G

Key Features

- ▶ Root pass capability up to API Grade X100 and hot, fill and cap pass up to X70 grade pipe
- ▶ Good back bead shape on STT® root passes
- ▶ Q2 Lot® - Certificate showing actual deposit chemistry available online
- ▶ Low silicon level for minimal clean-up
- ▶ ProTech® packaging system

Typical Applications

- ▶ Root pass welding of up to X100 grade pipe
- ▶ Hot, fill and cap pass welding of up to X70 grade pipe

Conformances

AWS A5.18/A5.18M: 2005 ER70S-G
 ASME SFA-A5.18: ER70S-G
 EN ISO 14341-B: G 49A Z C SZ

Welding Positions

All

Shielding Gas

100% CO₂
 75-95% Argon / Balance CO₂
 Flow Rate: 30 - 50 CFH

DIAMETERS / PACKAGING

Diameter in (mm)	10 lb (4.5 kg) Plastic Spool (Vacuum Sealed Foil Bag)	25 lb (11.3 kg) Plastic Spool (Vacuum Sealed Foil Bag)
0.045 (1.1)	ED030904	ED030905

MECHANICAL PROPERTIES⁽¹⁾ – As Required per AWS A5.18/A5.18M: 2005

	Yield Strength ⁽²⁾ MPa (ksi)	Tensile Strength MPa (ksi)	Elongation %	Charpy V-Notch J (ft•lbf) @ -29°C (-20°F)
Requirements - AWS ER70S-G As-Welded with 100% CO ₂	400 (58) min.	485 (70) min.	22 min.	Not Specified
Typical Results ⁽³⁾ As-Welded with 100% CO ₂	405-425 (59-62)	510-40 (74-78)	24-26	54-81 (40-60)

WIRE COMPOSITION – As Required per AWS A5.18/A5.18M: 2005

	%C	%Mn	%Si	%S	%P	%Cu
Requirements - AWS ER70S-G	Not Specified					
Typical Results ⁽³⁾	0.05-0.15	0.80-1.40	0.30-0.60	≤0.02	≤0.02	≤0.02

TYPICAL OPERATING PROCEDURES

Diameter, Polarity	CTWD ⁽⁴⁾ mm (in)	Wire Feed Speed m/min (in/min)	Voltage (volts)	Approx. Current (amps)	Melt-Off Rate kg/hr (lb/hr)
1.1 mm (0.045 in), DC+	12-19 (1/2-3/4)	3.2-12.7 (125-500)	19-30	145-340	1.5-6.0 (3.4-13.2)

⁽¹⁾Typical all weld metal. ⁽²⁾Measured with 0.2% offset. ⁽³⁾See test results disclaimer on pg. 12. ⁽⁴⁾CTWD (Contact Tip to Work Distance). Subtract 1/4 in. (6.4 mm) to calculate Electrical Stickout.

Material Safety Data Sheets (MSDS) and Certificates of Conformance are available on our website at www.lincolnelectric.com

TEST RESULTS

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested according to prescribed standards, and should not be assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to, weld procedure, plate chemistry and temperature, weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding consumable and procedure before use in the intended application.

CUSTOMER ASSISTANCE POLICY

The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or advice about their use of our products. Our employees respond to inquiries to the best of their ability based on information provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or advice. Moreover, the provision of such information or advice does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or advice, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose is specifically disclaimed.

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