

SUPERARC® XLS

Mild Steel, Copper Coated ■ AWS ER70S-9

KEY FEATURES

- Minimize surface silicates for exceptionally clean weld surface
- Reduced silicates for improved paint adhesion and increased corrosion resistance
- Microguard® Ultra surface treatment for consistent, stable arc performance with little to no weld spatter
- Optimized for use with Rapid X® LS mode to lower silicate island formation and spatter generation

WELDING POSITIONS

Flat & Horizontal

CONFORMANCES

| | |
|-----------------------|--------------|
| AWS A5.18: | ER70S-9 |
| ASME SFA-5.18: | ER70S-9 |
| ISO 14341-A: | G 42 3 M20 Z |

TYPICAL APPLICATIONS

- Fillet and lap welds on thin material, including but not limited to automotive frames, chassis and suspension components
- Designed specifically for high speed, single pass applications

SHIELDING GAS

90% Argon / 10% CO₂
 80% Argon / 20% CO₂
 Flow rate: 40-50 CFH

DIAMETERS / PACKAGING

| Diameter in mm | 44 lb (20 kg) Fiber Spool | 500 lb (227 kg) Accu-Pak® Box | 1000 lb (454 kg) Accu-Pak® Box |
|-------------------|------------------------------|----------------------------------|-----------------------------------|
| 0.047 (1.2) | ED037556 | | ED037555 |
| 0.045 (1.1) | ED037698 | | ED037697 |
| 0.040 (1.0) | ED037829 | | ED037828 |
| 0.035 (0.9) | ED037831 | ED037832 | |

MECHANICAL PROPERTIES⁽¹⁾

| | Yield Strength ⁽²⁾ MPa (ksi) | Tensile Strength MPa (ksi) | Elongation % | Charpy V-Notch J (ft•lbf) @ -30°C (-20°F) |
|--|--|-------------------------------|-----------------|---|
| Requirements ISO 14341-A-G 42 3 M20 Z | 420 (60.9) min | 500-640 (72.5-92.8) | 20 | 47 (34.7) |
| Typical Results⁽³⁾ As-Welded with 90% Argon / 10% CO ₂ | 460 (66.7) | 538 (78.1) | 25 | 171 (126) |

WIRE COMPOSITION

| | %C | %Mn | %Si | %S | %P | %Cu (Total) ⁽⁴⁾ | %B |
|---|-----------|---------|--------|--------|--------|----------------------------|-------------|
| Requirements ISO 14341-A-G 42 3 M20 Z | — | — | — | — | — | — | — |
| Typical Results⁽³⁾ | 0.06-0.10 | 1.4-1.8 | ≤ 0.20 | ≤ 0.02 | ≤ 0.02 | ≤ 0.2 | 0.002-0.005 |

⁽¹⁾Typical all weld metal. ⁽²⁾Measured with 0.2% offset. ⁽³⁾See test results disclaimer. ⁽⁴⁾Copper due to any coating on the electrode plus the copper content of the filler metal itself.

TYPICAL OPERATING PROCEDURES

| Diameter, Polarity Shielding Gas | CTWD ^(B) mm (in) | Wire Feed Speed m/min (in/min) | Voltage (volts) | Approx. Current (amps) | Melt-Off Rate kg/hr (lb/hr) |
|--|--------------------------------|-----------------------------------|--------------------|---------------------------|--------------------------------|
| 1.2 mm (0.047 in), DC+ | | | | | |
| Spray Transfer 80% Ar / 20% CO ₂ | 19 (3/4) | 3.8 (150) | 24 | 120 | 2.1 (4.5) |
| | | 8.9 (350) | 29 | 265 | 4.7 (10.3) |
| | | 14.0 (550) | 32 | 370 | 7.3 (16.2) |
| Spray Transfer 90% Ar / 10% CO ₂ | 19 (3/4) | 3.8 (150) | 23 | 125 | 2.0 (4.5) |
| | | 8.9 (350) | 28 | 255 | 4.7 (10.4) |
| | | 14.0 (550) | 32 | 360 | 7.3 (16.0) |

^(B)CTWD (Contact Tip to Work Distance). Subtract 1/4 in. (6.4 mm) to calculate electrode stickout.

Safety Data Sheets (SDS) 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

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