

Select ER439Ti

Stainless Steel / Gas Shielded / Solid

PRODUCT DATA SHEET

FEATURES

- Bare stainless steel electrode designed to weld exhaust system components of similar composition, ~18 wt% chromium (Cr), with increased oxidation resistance at high operating temperatures.
- Nominally ~18 wt% Cr with titanium (Ti) as the stabilizing element to prevent weld metal sensitization.
- Unique manufacturing techniques provide enhanced arc stability and stable feeding.
- Applications for this alloy type include ferritic stainless steel exhaust system components, converters, mufflers, and tubing of similar composition where heat and corrosion resistance are necessary.

CONFORMANCES

AWS A5.9

ER439

DIAMETERS (in [mm])

0.035 (0.9), 0.040 (1.0), 0.045 (1.2)

POSITIONS



SHIELDING GAS

Ar + 0.5-5% CO₂, Ar + 0.5-3% O₂
Flow Rate: 40 - 50 CFM

POLARITY

Direct Current Electrode Positive (DCEP)

TYPICAL WELD DEPOSIT CHEMISTRY (WT%)

| Shielding Gas | C | Cr | Cu | Mn | Mo | Ni | P | S | Si | Ti |
|---------------|------|-------|------|------|------|------|-------|-------|------|------|
| Argon | 0.02 | 17.60 | 0.02 | 0.67 | 0.02 | 0.16 | 0.016 | 0.002 | 0.69 | 0.45 |



Revision: 4/5/2022

Notice: Be sure to follow all your employers safety practices, policies and procedures when using this product. Refer to CSA W117.2 and ANSI Z49.1 Safety in Welding, Cutting and Allied Processes for further information and the manufactures SDS sheet. 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.

600 Enterprise Drive, P.O. Box 259, Fort Loramie, Ohio 45845-0259 • 877-869-4009 • www.Select-SAI.com

RECOMMENDED WELDING PARAMETERS

| Diameter in (mm) | Shielding Gas | Position | WFS* in/min (m/min) | Amps | Volts | CTWD* in (mm) |
|------------------|--------------------------|-------------------|---------------------|------|-------|---------------------|
| 0.035 (0.9 mm) | 98% Ar/2% O ₂ | Flat & Horizontal | 315 (8.0) | 135 | 20 | 1/2 (13) |
| | | Flat & Horizontal | 500 (12.7) | 170 | 22 | 1/2 (13) |
| | | Flat & Horizontal | 650 (16.5) | 220 | 23 | 5/8 - 3/4 (16 - 19) |
| | | Flat & Horizontal | 780 (19.8) | 250 | 25 | 5/8 - 3/4 (16 - 19) |
| 0.040 (1.0 mm) | 98% Ar/2% O ₂ | Flat & Horizontal | 295 (7.5) | 190 | 20 | 1/2 - 5/8 (13 - 16) |
| | | Flat & Horizontal | 375 (9.5) | 220 | 21 | 1/2 - 5/8 (13 - 16) |
| | | Flat & Horizontal | 525 (13.3) | 255 | 23 | 5/8 (16) |
| | | Flat & Horizontal | 630 (16.0) | 280 | 25 | 5/8 (16) |
| 0.045 (1.2 mm) | 98% Ar/2% O ₂ | Flat & Horizontal | 280 (7.1) | 225 | 20 | 1/2 - 5/8 (13 - 16) |
| | | Flat & Horizontal | 350 (8.9) | 245 | 21 | 1/2 - 5/8 (13 - 16) |
| | | Flat & Horizontal | 400 (10.2) | 275 | 23 | 5/8 (16) |
| | | Flat & Horizontal | 475 (12.1) | 300 | 25 | 5/8 (16) |

* WFS = Wire Feed Speed, CTWD = Contact Tip To Work Distance

PACKAGING (lbs [kgs])

33 (15) Spools, 60 (27.2) Coils, 500 (226.8) Round Drum, 800 (362.9) Hex Drum, 900 (408.2) Hex Drum

**Some packaging options may not be available depending on diameter and product. Special package options may be available upon request.*

STORAGE AND HANDLING

All products should be stored in original packaging, in dry conditions and handled with care. For more information refer to our website.



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