

Select 410

Stainless Steel / Gas Shielded / Flux Cored

PRODUCT DATA SHEET

FEATURES

- This alloy is an air-hardening steel that requires preheat and postheat treatments in order to achieve welds of satisfactory ductility for most applications.
- Designed for welding in the flat and horizontal positions where flat, well washed beads can be achieved in both 100% CO₂ or 75-80% Ar/balance CO₂ shielding gas
- Applications for this alloy are mostly found in welding components of similar compositions or for the surfacing of carbon steels to resist corrosion, erosion, or abrasion, which can occur in valve seats and other valve parts.

CONFORMANCES

AWS A5.22

E410T0-1

E410T0-4

ASME SFA 5.22

E410T0-1

E410T0-4

DIAMETERS (in [mm])

0.045 (1.2), 1/16 (1.6), 3/32 (2.4)

POSITIONS



SHIELDING GAS

75-80% Ar + Balance CO₂, 100% CO₂

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 |
|----------------------------|------|-------|------|------|-------|------|-------|-------|------|
| 100%CO ₂ | 0.06 | 11.30 | 0.02 | 0.30 | <0.01 | 0.30 | 0.012 | 0.006 | 0.27 |
| 75%Ar / 25%CO ₂ | 0.06 | 11.80 | 0.02 | 0.35 | <0.01 | 0.30 | 0.012 | 0.006 | 0.33 |

Bismuth is not intentionally added and levels are not known to be greater than 0.002 (WT%)

TYPICAL MECHANICAL PROPERTIES

| Shielding Gas | Tensile Strength ksi (MPa) | Yield Strength ksi (MPa) | Elongation (%) | Weld Condition | PWHT Temp |
|----------------------------|-------------------------------|-----------------------------|-------------------|-------------------|----------------|
| 100%CO ₂ | 92 (634) | 72 (497) | 22 | PWHT | 1375F for 1 Hr |
| 75%Ar / 25%CO ₂ | 93 (641) | 74 (510) | 22 | PWHT | 1375F for 1 Hr |



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.

RECOMMENDED WELDING PARAMETERS

| Diameter in (mm) | Shielding Gas | Position | WFS* in/min (m/min) | Amps | Volts | CTWD* in (mm) |
|------------------|---------------|-------------------|---------------------|------|-------|---------------|
| 0.045 (1.2 mm) | 100% CO2 | Flat & Horizontal | 250 (6.4) | 175 | 24 | 1/2 (13) |
| | | Flat & Horizontal | 435 (11.0) | 235 | 29 | 5/8 (16) |
| | | Flat & Horizontal | 780 (19.8) | 320 | 37 | 1 (25) |
| 1/16 (1.6 mm) | 100% CO2 | Flat & Horizontal | 235 (6.0) | 245 | 26 | 3/4 (19) |
| | | Flat & Horizontal | 325 (8.3) | 320 | 29 | 3/4 (19) |
| | | Flat & Horizontal | 385 (9.8) | 350 | 33 | 1 (25) |
| 3/32 (2.4 mm) | 100% CO2 | Flat & Horizontal | 120 (3.0) | 275 | 23 | 3/4 (19) |
| | | Flat & Horizontal | 180 (4.6) | 400 | 29 | 1 (25) |
| | | Flat & Horizontal | 250 (6.4) | 465 | 34 | 1 1/2 (38) |

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

For 75-80%Ar-Balance CO2 shielding gas, decrease voltage by 1 to 1.5 volts

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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