

Carbon Steel / Gas Shielded / Flux Cored

FEATURES

- Intended for welding of carbon steels such as ASTM A36, A285, A515-Gr 70, and A516-Gr 70
- Can be used with both 100% CO2 and blends of 75-90% Ar/balance CO2.
- Well suited for general fabrication of carbon steels abd structural steel welding
- Tensile strength is slightly lower than most other carbon steel all-position products, providing less overmathcing of strength on carbon steel plate materials.

CONFORMANCES

AWS A5.20

E71T-12C E71T-12M E71T-1C E71T-1M E71T-9C E71T-9M

DIAMETERS (in (mm))

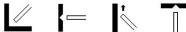
0.045 (1.2), 0.052 (1.3), 1/16 (1.6)

POSITIONS











SHIELDING GAS

75-90%Ar/Balance CO2, 100% CO2

Flow Rate: 40 - 50 CFM

POLARITY

Direct Current Electrode Positive (DCEP)

TYPICAL WELD DEPOSIT CHEMISTRY (WT%)

| Shielding Gas | С | Mn | P | S | Si |
|----------------|------|------|-------|-------|------|
| 100%CO2 | 0.04 | 0.98 | 0.008 | 0.010 | 0.13 |
| 75%Ar / 25%CO2 | 0.06 | 1.46 | 0.011 | 0.009 | 0.24 |
| 90%Ar / 10%CO2 | 0.07 | 1.53 | 0.009 | 0.009 | 0.42 |

TYPICAL MECHANICAL PROPERTIES

| Shielding Gas | Tensile Strength ksi (MPa) | Yield Strength ksi (MPa) | Elongation (%) | Weld Condition | PWHT Temp | CVN @ -20°F (-30°C) ft-lb (J) | CVN @ -40°F (-40°C) ft-lb (J) |
|----------------|----------------------------------|--------------------------------|-------------------|-------------------|--------------|-------------------------------------|-------------------------------------|
| 100%CO2 | 79 (544) | 68 (468) | 33 | As-Welded | - | - | 93 (126) |
| 75%Ar / 25%CO2 | 84 (582) | 70 (483) | 30 | As-Welded | - | 110 (149) | 90 (122) |
| 90%Ar / 10%CO2 | 90 (623) | 78 (540) | 24 | As-Welded | - | 88 (119) | 74 (100) |



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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) |
|---------------------|---------------|-------------------|------------------------|--|--|---------------------|
| | | All Positions | 200 (5.1) | 145 | 23 | 1/2 - 5/8 (13 - 16) |
| | | All Positions | 235 (6.0) | 160 | 24 | 1/2 - 5/8 (13 - 16) |
| 0.045 (1.2 mm) | 100% CO2 | All Positions | 300 (7.6) | 185 | 26 | 1/2 - 5/8 (13 - 16) |
| | | Flat & Horizontal | 375 (9.5) | 215 | 27 | 5/8 - 3/4 (16 - 19) |
| | | Flat & Horizontal | 440 (11.2) | 40 (11.2) 235 29 170 (4.3) 155 23 200 (5.1) 175 24 | 5/8 - 3/4 (16 - 19) | |
| | | All Positions | 170 (4.3) | 155 | 23 | 5/8 - 3/4 (16 - 19) |
| | | All Positions | 200 (5.1) | 175 | 24 | 5/8 - 3/4 (16 - 19) |
| 0.052 (1.3 mm) | 100% CO2 | All Positions | 250 (6.4) | 225 | 26 | 5/8 - 3/4 (16 - 19) |
| | | Flat & Horizontal | 310 (7.9) | 250 | 27 | 3/4 - 1 (19 - 25) |
| | | Flat & Horizontal | 395 (10.0) | 280 | 23 24 26 27 29 23 24 26 | 3/4 - 1 (19 - 25) |
| | | All Positions | 125 (3.2) | 165 | 23 | 5/8 - 3/4 (16 - 19) |
| 1/16 (1.6 mm) | | All Positions | 150 (3.8) | 195 | 24 | 5/8 - 3/4 (16 - 19) |
| | 100% CO2 | All Positions | 185 (4.7) | 225 | 26 | 5/8 - 3/4 (16 - 19) |
| | | Flat & Horizontal | 265 (6.7) | 280 | 27 | 3/4 - 1 (19 - 25) |
| | | Flat & Horizontal | 325 (8.3) | 320 | 29 | 3/4 - 1 (19 - 25) |

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

Welding parameters are for 100% CO2, the voltage must be gradually decreased for blends of argon and CO2: ½-1 volt for 85% Ar/15% CO2, and 1-1 ½ volts for 90% Ar/10% CO2.

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

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