

# Select 70C-8GT

Carbon Steel / Gas Shielded / Metal Cored

PRODUCT DATA SHEET

## FEATURES

- This product is intended for single and limited multiple pass welding of carbon steels, in horizontal fillet and flat position applications.
- Select 70C-8GT is ideal for those difficult-to-weld items such as heavily rusted and scaled surfaces. It can also be used when the steel is coated with oil or paint. This is due to special deoxidation that makes it very effective when welding over these surfaces.
- There are several advantages over welding with solid electrodes; increased travel speeds, better fusion into base material and sidewalls, and the virtual elimination of subsurface porosity.
- Strength levels and CVN toughness make it well suited for welding ordinary and fine grained steels such as ASTM A36, A285, A516, Grade 70 and A515 Grade 70.

## CONFORMANCES

|            |                      |
|------------|----------------------|
| AWS A5.36M | E490T15-M20A3-CS1-H4 |
| AWS A5.36  | E70T15-M20A2-CS1-H4  |

## DIAMETERS (in [mm])

0.045 (1.2), 1/16 (1.6), 5/64 (2.0)

## POSITIONS



## SHIELDING GAS

75-95% Ar / Balance CO<sub>2</sub>

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   | V     |
|----------------------------|------|------|------|------|-------|------|-------|-------|------|-------|
| 75%Ar / 25%CO <sub>2</sub> | 0.04 | 0.05 | 0.05 | 1.62 | 0.004 | 0.03 | 0.010 | 0.010 | 0.68 | 0.007 |

## TYPICAL MECHANICAL PROPERTIES

| Shielding Gas              | Tensile Strength<br>ksi (MPa) | Yield Strength<br>ksi (MPa) | Elongation<br>(%) | Weld Condition | PWHT<br>Temp | CVN @<br>-20°F (-30°C)<br>ft-lb (J) |
|----------------------------|-------------------------------|-----------------------------|-------------------|----------------|--------------|-------------------------------------|
| 75%Ar / 25%CO <sub>2</sub> | 92 (634)                      | 81 (559)                    | 28                | As-Welded      | -            | 60 (81)                             |



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)   | 75% Ar/25% CO2 | Flat & Horizontal | 260 (6.6)           | 200  | 25    | 1/2 - 5/8 (13 - 16) |
|                  |                | Flat & Horizontal | 305 (7.7)           | 220  | 26    | 1/2 - 5/8 (13 - 16) |
|                  |                | Flat & Horizontal | 360 (9.1)           | 240  | 27.5  | 5/8 - 3/4 (16 - 19) |
|                  |                | Flat & Horizontal | 405 (10.3)          | 255  | 29    | 5/8 - 3/4 (16 - 19) |
| 1/16 (1.6 mm)    | 75% Ar/25% CO2 | Flat & Horizontal | 200 (5.1)           | 250  | 25    | 5/8 - 3/4 (16 - 19) |
|                  |                | Flat & Horizontal | 245 (6.2)           | 290  | 26    | 5/8 - 3/4 (16 - 19) |
|                  |                | Flat & Horizontal | 275 (7.0)           | 310  | 27.5  | 3/4 - 1 (19 - 25)   |
|                  |                | Flat & Horizontal | 285 (7.2)           | 330  | 29    | 3/4 - 1 (19 - 25)   |
| 5/64 (2.0 mm)    | 75% Ar/25% CO2 | Flat & Horizontal | 170 (4.3)           | 350  | 25    | 3/4 - 1 (19 - 25)   |
|                  |                | Flat & Horizontal | 185 (4.7)           | 370  | 26    | 3/4 - 1 (19 - 25)   |
|                  |                | Flat & Horizontal | 210 (5.3)           | 400  | 28    | 1 - 1 1/4 (25 - 32) |
|                  |                | Flat & Horizontal | 255 (6.5)           | 415  | 29    | 1 - 1 1/4 (25 - 32) |

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

Welding parameters are for 75% Ar /25% CO2, at higher levels of argon the voltage should be gradually decreased: ½-1 volt for 85% Ar/15% CO2, 1-1 ½ volts for 90% Ar/10% CO2, and 1-2 volts for 95% Ar/5% CO2.

## APPROVALS

| Agency         | Approval             | Shielding Gas        | Diameter(s) in (mm)      |
|----------------|----------------------|----------------------|--------------------------|
| CWB CSA W48-23 | E490T15-M20A3-CS1-H4 | M20 (90%Ar / 10%CO2) | 0.045 (1.2) - 5/64 (2.0) |

## 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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