

# SelectAlloy 347-C

Stainless Steel / Gas Shielded / Metal Cored

PRODUCT DATA SHEET

## FEATURES

- The addition of niobium (Nb) reduces the possibility of intergranular chromium carbide precipitation and thus susceptibility to intergranular corrosion.
- Metal cored benefits include the ability to successfully bridge gaps when part fit up is not as designed, higher travel speeds with subsequent lower heat inputs at equal amperages, and ability to join thin materials.
- Applications for this alloy type includes welding chromium-nickel stainless steel base metals of similar composition stabilized with either Nb or titanium (Ti).

## CONFORMANCES

|               |       |
|---------------|-------|
| AWS A5.22     | EC347 |
| ASME SFA 5.22 | EC347 |

## DIAMETERS (in [mm])

0.035 (0.9), 0.045 (1.2), 1/16 (1.6)

## POSITIONS



## SHIELDING GAS

Ar + 0.5-5% CO<sub>2</sub>, Ar + 0.5-3% O<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   | Nb   | Ni    | P     | S     | Si   |
|--------------------------|--------|-------|------|------|------|------|-------|-------|-------|------|
| 98%Ar / 2%O <sub>2</sub> | 0.05   | 20.10 | 0.17 | 1.20 | 0.11 | 0.70 | 10.10 | 0.020 | 0.004 | 0.47 |
| Ferrite                  | Result |       |      |      |      |      |       |       |       |      |
| WRC 1992                 | 8 FN   |       |      |      |      |      |       |       |       |      |

## TYPICAL MECHANICAL PROPERTIES

| Shielding Gas            | Tensile Strength<br>ksi (MPa) | Yield Strength<br>ksi (MPa) | Elongation<br>(%) | Weld<br>Condition | PWHT<br>Temp |
|--------------------------|-------------------------------|-----------------------------|-------------------|-------------------|--------------|
| 98%Ar / 2%O <sub>2</sub> | 93 (641)                      | 63 (434)                    | 38                | As-Welded         | -            |



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)       |
|------------------|--------------------------|-------------------|---------------------|------|-------|---------------------|
| 0.035 (0.9 mm)   | 98% Ar/2% O <sub>2</sub> | Flat & Horizontal | 450 (11.4)          | 170  | 21    | 1/2 (13)            |
|                  |                          | Flat & Horizontal | 515 (13.1)          | 185  | 23    | 1/2 (13)            |
|                  |                          | Flat & Horizontal | 560 (14.2)          | 200  | 24    | 1/2 - 5/8 (13 - 16) |
|                  |                          | Flat & Horizontal | 655 (16.6)          | 205  | 26    | 1/2 - 5/8 (13 - 16) |
| 0.045 (1.2 mm)   | 98% Ar/2% O <sub>2</sub> | Flat & Horizontal | 325 (8.3)           | 220  | 22    | 1/2 - 5/8 (13 - 16) |
|                  |                          | Flat & Horizontal | 375 (9.5)           | 235  | 23    | 1/2 - 5/8 (13 - 16) |
|                  |                          | Flat & Horizontal | 420 (10.7)          | 250  | 24    | 5/8 - 3/4 (16 - 19) |
|                  |                          | Flat & Horizontal | 500 (12.7)          | 270  | 26    | 5/8 - 3/4 (16 - 19) |
| 1/16 (1.6 mm)    | 98% Ar/2% O <sub>2</sub> | Flat & Horizontal | 225 (5.7)           | 265  | 21    | 5/8 - 3/4 (16 - 19) |
|                  |                          | Flat & Horizontal | 300 (7.6)           | 305  | 23    | 5/8 - 3/4 (16 - 19) |
|                  |                          | Flat & Horizontal | 330 (8.4)           | 335  | 23    | 3/4 - 1 (19 - 25)   |
|                  |                          | Flat & Horizontal | 375 (9.5)           | 350  | 26    | 3/4 - 1 (19 - 25)   |

\* 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.



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.