SelectAlloy 308H-AP

Description:
SelectAlloy 308H-AP is a gas-shielded, flux cored, stainless steel electrode designed to weld in all positions. It has a nominal weld metal composition of 20% Cr, 10% Ni and a carbon content of 0.04 to 0.08%. The higher carbon in this alloy makes it suitable for higher temperature use. It is designed for use with 100% carbon dioxide or a blend of 75-80% argon/balance carbon dioxide. Shielding gas mixtures with more than 75-80% argon are not recommended.

Classifications:
- E308HT1-1, E308HT1-4 per AWS A5.22 (Also meets E308T1-1, E308T1-4 per AWS A5.22)

Characteristics:
SelectAlloy 308H-AP provides superb performance characteristics in all positions, using either CO₂ or argon + 20-25% CO₂ shielding gas. Flat, well washed beads can be achieved with minimal weaving. Spatter is very low and slag peeling is excellent, minimizing cleanup.

Applications:
SelectAlloy 308H-AP finds application in the welding of components for the petrochemical industry. It may be used to weld 304H and 347H.

Typical Mechanical Properties (CO₂)*:
- Ultimate Tensile Strength (psi) 87,000
- Yield Strength (psi) 64,500
- Percent Elongation 42

*Strength levels will be slightly higher w/Ar+20-25% CO₂

Typical Weld Deposit Chemistry (wt%):
- Shielding Gas     C   Cr    Ni  Mn   Si   N
  - 100CO₂  0.06 20.30 10.40 1.22 0.67 0.05

Ferrite Number (WRC, 1992) - 5

Typical Welding Parameters (CO₂)*:
- Diameter     WFS (ipm)  Amperage  Voltage  ESO (in.)  Dep. Rate (lbs/hr)
  - .035”   300          110       25       5/8-3/4     3.3
  - .035”   500          150       26       5/8-3/4     5.4
  - .035”   600          165       27       5/8-3/4     6.3
  - .035”   700          175       28       5/8-3/4     7.7
  - .045”   250          130       24       5/8-3/4     5.4
  - .045”   300          160       26       5/8-3/4     6.3
  - .045”   425          200       28       5/8-3/4     9.2
  - .045”   780          270       34       5/8-3/4    16.2
  - 1/16”    150          170       25       3/4-1       5.4
  - 1/16”    195          215       27       3/4-1       7.0
  - 1/16”    240          250       28       3/4-1       8.6
  - 1/16”    320          305       29       3/4-1      11.5

* Optimum conditions are in boldface type. Reduce by 2 volts when using Ar+20-25% CO₂.

Notice: 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. 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.

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