Unibraze 312T-1

All Position

Classification: E312T1-1, E312T1-4 per AWS A5.22.

Description:
Unibraze 312T1 is an all position, flux cored, stainless steel electrode designed with a weld metal composition of 30% Chromium, 9% Nickel and 0.1% Carbon. Unibraze 312T1 has excellent slag removal and run with a spatter free globular transfer.

Applications:
Unibraze 312T-1 is used for welding dissimilar metals including all types of stainless steels, low alloy steels and high strength steels. It is also used to weld high Sulfur grades of stainless and low alloy steels.

Typical Mechanical Properties: (CO_2)*

Ultimate Tensile Strength (psi)	114,000
Yield Strength (psi)	90,000
Percent Elongation	25 %

* Strength levels will be slightly higher w/Ar+20-25% CO_2

Typical Weld Deposit Chemistry: (CO_2)

C – 0.10	Mn - 0.80	Cr – 29.5	Si - .70	Ni -8.7	N - 0.05

Ferrite Number (WRC, 1992) – 60

Typical Welding Parameters: (CO_2)**

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% CO_2.

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. 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.