WASHINGTON ALLOY CO.

Tubular Welding Wire

For 490MPa high tensile steel

BW 799

Classifications

AWS A5.20 E71T-1C/1M H8, -9C/9M H8 CWB/
CSA W48-06 E491T-9/9M H8

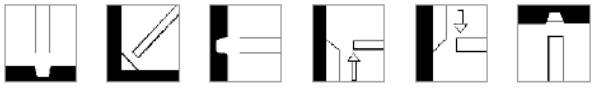
EN ISO 17632-A:2008 T46 2 P C/M 1 H10
EN ISO 17632-B:2008 T49 2 T1-1CA/MA-U H10

Meets AWS D1.8: Structural Welding Code - Seismic Supplement

Descriptions

- It features fast-freezing slag system based upon rutile-type materials for all-positional welding.
- Typical applications include machineries, shipbuilding, offshore structures and general fabrications.
- It is designed for welding of 490MPa high tensile steel with outstanding mechanical properties
- It also provide excellent usability with stable arc, less spatter levels, smooth bead shape
- It is not recommended any drying treatment but, keep this product in the dry environment at specific atmoshere (- 15°C: max 60% RH, 15 - 25°C: max 50% RH, >25°C: max 40% RH)

Welding positions



Polarity & Shielding gas

DCEP (DC+)

- 100%CO_2 (15~25ℓ/min)

75-85%Ar / Balance CO_2

Recommended welding parameters and deposition rate

Diameter Inches	Diameter (mm)	Amps	Volts	WFS (IPM)	Deposition Rate (lbs/kr)	Wire Stick-out (inches)
0.045	1.2	120	22-25	140	4.2	1"
		160	24-26	200	6.5	3/4"
		200	26-30	300	7.8	
		230	27-32	350	9.3	
		250	28-34	400	10.5	
0.052	1.4	140	23-26	120	3.7	3/4"
		180	24-27	200	5	
		210	26-28	250	6.5	
		250	27-32	300	8	
		320	30-34	420	11.5	1"
1/16	1.6	180	24-27	120	4.7	3/4"
		240	26-28	180	7.2	
		300	28-32	250	10.8	1"
		350	30-34	300	11.5	
		400	32-36	420	15.5	

The upper table shown are approximately values for 100%CO2 shielding gas at the conditions of DCEP General recommendation is that mixture gas based on Ar gas can be used 1~2 volts lower than 100%CO2

Typical Mechanical Properties of all-weld metal

	Y.S (Ksi) (MPa)	T.S. (MPa)	El. (%)	V-Notch Impact Values 0℉(-20℃)	V-Notch Impact Values -20℉(-30℃)	Remark
AWS A5.20	≥58(400)	70-90(520-620)	≥22		≥20ft.lbs(27J)	
100%CO_2	76.6(528)	83.3(574)	29	51.6(70)	33.2(45)	As welded
Ar+25%CO_2	81.0(558)	88.1(607)	28	62.7(85)	39.1(53)	