



Unibraze 7010 (E7010)

DESCRIPTION:

An excellent all-position, cellulosic mild steel electrode, UNIBRAZE 7010 is what you need for a strong, dependable, X-ray quality weld. It delivers the arc stability and drive you need for the best penetration possible; plus, it's ideal for vertical-down welding, single-or multi-pass, on 5L, 5LX, and X52 through X65 pipes. With UNIBRAZE 7010, you'll improve your welding efficiency because it's quick to start, and quick to clean up with a light slag that's easy to remove.

APPLICATIONS:

Drill platforms, pipeline welding using downhill travel, shipbuilding, storage tanks and welding of high-yield pipe steels.

FEATURES:

- Quick-starting
- All-position
- Excellent vertical down
- Excellent arc stability
- Superior arc drive
- Excellent wash-in
- Light slag

BENEFITS:

- Easy arc striking and increased welding efficiency
- Welds in flat, horizontal, vertical and overhead positions
- Faster travel speeds
- Welding accuracy and efficiency
- Excellent penetration
- Maximizes fusion of joints
- Quick and easy cleaning of weld bead

TYPICAL WELD METAL PROPERTIES*(Chem Pad):

Weld Metal Analysis		AWS Spec (max)
Carbon (C)	0.10	0.20
Manganese (Mn)	0.85	1.20
Phosphorus (P)	0.01	0.03
Sulphur (S)	0.01	0.03
Silicon (Si)	0.40	0.60
Chromium (Cr)	0.02	0.30
Vanadium (V)	---	0.10
Nickel (Ni)	0.55	1.00
Molybdenum (Mo)	0.10	0.50

TYPICAL MECHANICAL PROPERTIES*(AW):

		AWS Spec (min)
Tensile Strength	87,000 psi (600 MPa)	70,000 psi
Yield Strength	71,000 psi (490 MPa)	60,000 psi
Elongation % in 2"	26%	22%
Reduction of Area	63%	not required

TYPICAL CHARPY V-NOTCH IMPACT VALUES*(AW):

		AWS Spec (min)
Avg. at -30°F (-34°C)	35 ft•lbs (47 Joules)	20 ft•lbs
Avg. at -40°F (-40°C)	25 ft•lbs (34 Joules)	not required

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 product.



Unibraze 7010 (E7010)

CONFORMANCES AND APPROVALS:

- AWS A5.5, E7010-P1, ASME SFA 5.5, F-3, A-1, E7010-P1
- ABS E7010-P1
- Lloyd's Grade 3m, 3Ym

NOTE: UNIBRAZE 7010 is a low-alloy cellulosic electrode. Preheat, interpass and post-heating temperatures between 325°F and 375°F should be employed if ambient temperatures are below 32°F (0°C).

RECOMMENDED WELDING PROCEDURES:

- GENERAL:** Electrode positive, work negative (DCEP)
ARC LENGTH: Average length (1/8" to 1/4")
FLAT: Stay ahead of puddle and use slight whipping motion
VERTICAL-UP: Slight whipping or weaving technique
VERTICAL-DOWN: Use higher amperage and faster travel, staying ahead of puddle
OVERHEAD: Use similar technique as for vertical-up, multi-pass for build-up
PIPE: Use downhill travel
STORAGE: Dry at room temperature
RECONDITIONING: Not recommended

RECOMMENDED OPERATING PARAMETERS:

Diameter		Type of Power	Minimum Amps	Optimum* Amps	Maximum Amps
Inches	mm				
3/32	2.4	AC or DCEP	60	60	90
1/8	3.2	AC or DCEP	80	100	125
5/32	4.0	AC or DCEP	130	140	160
3/16	4.8	AC or DCEP	160	180	190

*For out-of-position welding, reduce amperage shown by 15%.

TYPICAL DEPOSITION DATA (at optimum):

Diameter		Type of Power	Amps	Volts	Deposition Rate lbs/hr	Deposition Efficiency*%
Inches	mm					
3/32	2.4	AC	60	25	1.62	66.5
1/8	3.2	AC	100	24	2.57	67.2
5/32	4.0	AC	140	25	3.28	65.7
3/16	4.8	AC	180	25	3.86	69.1

*Allowance made for 2" stub loss included.

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 product.