



Unibraze 6010 Plus (E6010)

DESCRIPTION:

UNIBRAZE 6010 Plus is a quick-starting, cellulosic mild steel electrode that provides you with outstanding arc stability, penetration and wash-in. It's ideal for welding in all positions and produces an X-ray quality weld with light slag that's easy to remove. UNIBRAZE 6010 Plus can be used to weld the following API 5L steels: Grade A, B, X-42, X-46, X-52, X-56 and for the root pass on material up to X-80. It features enhanced weldability and increased physical properties.

APPLICATIONS:

Construction and shipbuilding, general purpose fabrication, maintenance welding, out-of-position X-ray welds, pipe welding and vertical and overhead plate welding.

FEATURES:

- Quick-starting efficiency
- 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
- Easy weld lay-in and smooth bead appearance
- Quick and easy cleaning of weld bead

TYPICAL WELD METAL PROPERTIES**(Chem Pad):

Weld Metal Analysis		AWS Spec (max)
Carbon (C)	0.15	not required
Manganese (Mn)	0.45	not required
Silicon (Si)	0.15	not required

TYPICAL MECHANICAL PROPERTIES**(AW):

		AWS Spec (min)
Tensile Strength	72,000 psi (496 MPa)	60,000 psi
Yield Strength	60,000 psi (413 MPa)	48,000 psi
Elongation % in 2"	25%	22%
Reduction of Area	55%	not required

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

		AWS Spec (min)
Avg. at -20°F (-29°C)	35 ft•lbs (68 Joules)	20 ft•lbs

CONFORMANCES AND APPROVALS:

- AWS A5.1, E6010, ASME SFA 5.1, F-3, A-1, E6010
- ABS E6010
- Lloyd's Grade 3m
- EN499, E383C21

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 6010 Plus (E6010)

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	DCEP	40	60	70
1/8	3.2	DCEP	65	100	130
5/32	4.0	DCEP	90	140	175
3/16	4.8	DCEP	140	170	225

*For out of position welding, reduce amperages 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	DCEP	60	26-29	1.30	53
1/8	3.2	DCEP	110	26-27	1.60	54
5/32	4.0	DCEP	140	26-28	1.90	55
3/16	4.8	DCEP	180	26-28	2.60	54

*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..