Unibraze 8018-B6

(E8018-B6)

(502-18)

DESCRIPTION:

UNIBRAZE 8018-B6 is an iron powder low hydrogen covered electrode designed for the welding of 5% Cr, 1/2% Mo steels and other chromium-molybdenum steels in service conditions too severe for UNIBRAZE 8018-B3. Its special coating reduces moisture pick-up, minimizing hydrogen cracking and starting porosity, UNIBRAZE 8018-B6 strikes and re-strikes easily, and provides a stable arc that is easy to control.

APPLICATIONS:

Primarily used in the petrochemical and petroleum industries. Excellent for tubes, tube sheets, and plate steels for high pressure hydrogen service.

FEATURES:	BENEFITS:
• Excellent arc characteristics	• Stable, easy to control arc
• Low moisture content	• Prevents starting porosity
• Quick and easy slag removal	• Reduces clean-up time
• Low spatter level	• Improves weld bead appearance, higher deposition
• Low hydrogen	• Resistant to hydrogen-induced cracking

TYPICAL WELD METAL PROPERTIES (Chem Pad):

Weld Metal Analysis		AWS Spec
Carbon (C)	0.06	0.05 to 0.10
Manganese (Mn)	0.80	1.00 max
Phosphorus (P)	0.01	0.03 max
Sulphur (S)	0.01	0.03 max
Silicon (Si)	0.29	0.90 max
Chromium (Cr)	4.40	4.00 to 6.00
Nickel (Ni)	0.042	0.40 max
Molybdenum (Mo)	0.50	0.45 to 0.65

TYPICAL MECHANICAL PROPERTIES:

Stress relieved 1 hour at 1375°F		AWS Spec
Tensile Strength	96,000 psi (659 MPa)	80,000 min
Yield Strength	80,000 psi (554 MPa)	67,000 min
Elongation % in 2”	24%	19% min

TYPICAL CHARPY V-NOTCH IMPACT VALUES (AS WELDED):

Not required

DIFFUSIBLE HYDROGEN: 3.4 ml/100 gr

CONFORMANCES AND APPROVALS:

• AWS A5.5, E8018-B6 H4R
• ABS

Unibraze Corporation 1050 Penner Crest Houston, TX 77055 1-800-364-6900 www.unibraze.com

Unibraze 8018-B6

(E8018-B6)

RECOMMENDED WELDING PROCEDURES:

GENERAL: DCEP (electrode positive, work negative)
ARC LENGTH: Very short (less than half the diameter of the electrode)
FLAT: Angle electrode 10-15° from 90°
VERTICAL-UP: Use weaving technique
VERTICAL-DOWN: Not recommended
OVERHEAD: Use slight weaving motion within the puddle
STORAGE: After opening, store in holding oven (250°F to 300°F) until used to ensure low hydrogen weld deposit.
RECONDITIONING: If electrode has been exposed to the atmosphere for an extended period of time, place in 250°F oven and slowly increase temperature to 600°F; bake at 600°F for one (1) hour.

RECOMMENDED OPERATING PARAMETERS:

Diameter Inches	Diameter mm	Type of Power	Minimum Amps	Optimum* Amps	Maximum Amps
3/32	3.0	DCEP	70	95	110
1/8	3.2	DCEP	90	140	160
5/32	4.0	DCEP	130	190	210
3/16	4.8	DCEP	200	250	290

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

AVAILABLE DIAMETERS AND PACKAGES:

Diameter Inches	Diameter mm	Length Inches	Length mm	10# Can
3/32	2.4	14"	355	S123532-033
1/8	3.2	14"	355	S123544-033
5/32	4.0	14"	355	S123551-033
3/16	4.8	14"	355	S123558-033

Unibraze Corporation 1050 Penner Crest Houston, TX 77055 1-800-364-6900 www.unibraze.com