



Unibraze 1100

Unibraze 1100 is the ultimate maintenance electrode for welding all types of steels (high alloy, dissimilar), without any danger of cracking or breakage. Special "FERRITE BALANCED" Chemistry also allows Unibraze 1100 to serve as a "STUD PULL" electrode. Due to exceptional strength and crack resistance, it is ideal for repairing tools, dies, spring steel and any dissimilar metal combinations (carbon steel, stainless steel, etc.), except for the aluminum and copper alloys. It is also recommended for repairing worn parts and as an underlay for hardfacing.

Microstructure

A duplex austenite/ferrite structure with less than 40% ferrite.

ALL WELD METAL ANALYSIS (Typical Weight %):

Cu C Mn Cr Si S Ni P Mo Fe

PROPRIETARY

Specifications

AWS/ASME A 5.4: E 312-17* EN 1600: E 29.9 R 3 2*

DIN 8556: E 29.9 R 23* ISO 3581: E 29.9 R 23*

NFA 81-343: EZ 29.9 R 23*

*= **Proprietary Modification**

Typical Mechanical Properties

Undiluted Weld Metal	Maximum value up to
Tensile strength as welded	132,300 psi (910 N/mm ²)
Work hardened	186,000 psi (1280 N/mm ²)
Yield strength	94,000 psi (660 N/mm ²)
Elongation	36%
Reduction of area	25%
Impact Energy	50J: 68oF (20oC)
Hardness	Rockwell B-97, Brinell (BHN) ~240

Recommended Amperage Setting:

Diameter (mm)	1/16 (1.6)	3/64 (2.0)	3/32 (2.5)	1/8 (3.2)	5/32 (4.0)	3/16 (5.0)
Minimum Amperage	25	30	35	60	75	130
Maximum Amperage	35	55	70	110	140	200

DC Reverse Polarity (Electrode +) or AC

Welding Position – Flat, Horizontal, Vertical up, Overhead

Welding Technique:

The area in which the weld is to be made should be free of rust, grease, paint and other materials which cause weld contamination. A 90⁰ v-joint should be used when joining heavy sections. Maintain a short arc length and use stringer beads.