



THUNDERBOLT

Typical Properties :

Undiluted Weld Metal

Tensile strength as welded
work hardened

Yield strength

Elongation

Reduction of area

Impact Energy

Hardness

Maximum Value up to:

132,300 psi (910 N/mm²)

186,000 psi (1280 N/mm²)

94,000 psi (660 N/mm²)

36%

25%

50J: 68°F (20°C)

Rockwell B-97 Brinell 320

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

Recommended Current: DC reverse polarity (Electrode +) or AC

Recommended Amperage Settings:

Diameter (mm)	3/32 (2.5)	1/8 (3.25)	5/32 (4.0)
Minimum Amperage	35	60	75
Maximum Amperage	70	110	140

Welding Position: Flat, Horizontal, Vertical Up, Overhead

Deposition Rates:

Diameter (mm)	Length (mm)	Weldmetal/ Electrodes	per lb (kg) of Weldmetal Arc Time of	Deposition min/lb (kg)	Amperage Setting	Recovery Rate
3/32 (2.5)	12" (300)	.38oz (11g)	40 (88)	37 (82)	65	100%
1/8 (3.25)	14" (350)	.64oz (18g)	25 (55)	26 (58)	100	100%
5/32 (4.0)	14" (350)	1oz (28g)	16 (36)	21 (46)	130	100%

Welding Techniques: 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 90° vee joint should be used when joining heavy sections. Maintain a short arc length and use stringer beads.

Electrode Packaging & Dimensions:

Diameter (mm)	3/32 (2.5)	1/8 (3.25)	5/32 (4.0)
Length (mm)	12" (300)	14" (350)	14" (350)
Electrodes/lb	26	14	9
Electrodes/kg	58	31	20