

DESCRIPTION

Stoody 309L stainless steel wire is a tubular alloy cored wire than can be used in the GMAW (MIG) or SAW (Submerged Arc) processes. The tubular wire provides deposition rates equal to that of solid wires at lower amperages. This feature allows less heat input into the work piece and therefore causes less distortion. Penetration, however, is still excellent. Stoody 309L wires can be used to join AISI 309 steels. It is also used to join AISI 304 to carbon and low alloy steels.

GMAW Welding — Stoody “Shielded” stainless steel wires are designed for downhand welding in GMAW (MIG) operation. Electrode positive polarity should be used for maximizing penetration when doing a joining application. For overlay work on a mild steel base metal, electrode negative polarity is recommended to reduce dilution and penetration. Out of position welding is greatly improved with the use of pulsed arc power supplies.

Submerged Arc Welding — Mechanical properties of submerged arc deposits are similar to those of “Standard” coated electrodes. Typically the larger diameter wires (3/32”, 1/8”) are used for submerged arc applications

TYPICAL DEPOSIT CHARACTERISTICS

Tensile Strength 82 KSI
Elongation in 2” 35%

TYPICAL DEPOSIT CHEMISTRY (wt%)

Carbon	0.02
Manganese	1.62
Silicon	0.51
Chromium	24.2
Nickel	12.5
Iron	Balance

OPERATIONAL CHARACTERISTICS / WELDING PARAMETERS

	GMAW	SAW
Diameter, In. (mm)	1/16 (1.6)	3/32 (2.4)
Current, Amp. DCEP	200 – 400	250 – 500
Voltage	24 – 26	28 – 32
Wire Extension	1/2” – 3/4”	1 1/4” – 1 1/2”
Flux Type	None	R-20 Flux
Shielding Gas	Argon or 98/2	None

	SAW
Diameter, In. (mm)	1/8 (3.2)
Current, Amp. DCRP	350 – 550
Voltage	29 – 33
Wire Extension	1 1/4” – 1 1/2”
Flux Type	R-20 Flux
Shielding Gas	None

STANDARD SIZES & PACKAGING

Diameter	Packaging	Part #
1/16” (1.6mm)	33# WB	11067700
1/16” (1.6mm)	50# PP	11067000
3/32” (2.4mm)	60# Coil	11004600
3/32” (2.4mm)	100# Coil	11004800
1/8” (3.2mm)	100# Coil	11004700
1/8” (3.2mm)	200# HP	11810100
1/8” (3.2mm)	500# POP	11704300

Stoody Company

5557 Nashville Road • Bowling Green, KY 42101
1-800-426-1888

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