THY-A309LQ (E309LT1-1)

GAS-SHIELDED STAINLESS STEEL FLUX-CORED WIRE

Equivalent to AWS A5.22 E309LT1-1
GB/T 17853 TS 309L-FC11

APPLICATION

Dissimilar welding of stainless steel to carbon or low-alloy steel, root passes on the clad layer of stainless-clad steel plate, and buffer passes before depositing 308-series stainless steel on carbon or stainless steel.

CHARACTERISTICS

THY-A309LQ is an extra-low-carbon, rutile flux-cored stainless steel wire for C1 shielding gas. It supports all-position welding and has low crack sensitivity due to its relatively high ferrite content.

PRECAUTIONS

Use DCEP (electrode positive). Maintain a wire extension of 15-20 mm and a CO_2 flow rate of 20-25 L/min. For multipass welding, keep the interpass temperature at or below 120 °C. Remove oil and rust from the base metal before welding to reduce the risk of porosity. The wire is protected against moisture before use. Use promptly after opening and avoid prolonged exposure of unused wire to air.

WELDING POSITIONS



MECHANICAL PROPERTIES

Items	Tensile strength (MPa)	Elongation (%)
Requirements	≥520	≥25
Typical results	548	32

DEPOSITED WELD METAL CHEMICAL COMPOSITION (%)

CO2

Items	C	Mn	Si	S	P	Cr	Ni	Mo	Cu
Requirements	≤0.04	0.5-2.5	≤1.0	≤0.03	≤0.04	22.0-25.0	12.0-14.0	≤0.75	≤0.75
Typical results	0.03	1.49	0.62	0.005	0.028	22.70	12.87	0.11	0.03

TYPICAL OPERATING PROCEDURES

DCEP

Diameter (mm)	1.2	1.6
Voltage (V)	24-30	26-32
Current (A)	140-240	200-300

CERTIFICATION

ABS E309LT1-1 · CCS 304LS · DNV NV 309L · BV S309L · LR SS/CMnS · RS A-9sp

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