

309L

WELDING ROD WITH EXTRUDED COVERING. EASY APPLICATION. FOR STAINLESS STEEL TYPES AISI : 301, 302, 304, 308 AND 309.

CLASSIFICATION A.W.S: E-309L-16

APPLICATIONS: Filler metal is stainless steel type 309L (25% Chromium and 12% Nickel). This electrode was specially formulated to join stainless steel with a similar composition. Its higher chromium and nickel content makes it highly resistant to corrosion and less liable to inter granular corrosion even after long exposure to high temperatures. It is ideal to weld parts submitted to temperatures of up to 1,100 °C.

It is used in furnace parts, heat exchangers, pipes for acids, caustic soda vessels, nitriding/carburizing boxes, fuel oil burners, etc. It is also used to join materials which are different, either ferritic or martensitic whenever corrosive conditions and expansion coefficient allow it .

CHARACTERISTICS AND PROCEDURE: 309L is an electrode whose filler metal is stainless steel type 25/12-- i.e. 25% Chromium and 12% Nickel. Its granular structure corresponds to that of an austenitic stainless steel. Slag is easily controllable and does not hamper the arc. Weld seams are smooth, ductile and have an excellent look. The part to be welded has to be as clean as possible. When the part is large, it should be preheated at 200° C. Keep the arc short and do not let the electrode contact the surface nor let the arc choke in the weld pool. Best results are obtained by using enough amperage to achieve good fusion. Avoid excessive wavering. Stringer beads (straight) are the best choice. When welding vertical or overhead, set the amperage as close to the lowest values in the chart below as possible.

TENSILE RESISTANCE:	5,905 KG./CM2 (84,000 PSI)
BRINELL HARDNESS:	205 BHN
ELONGATION:	42%
FERRITE No.:	13
POSITIONS:	ALL
CURRENT	AC or DC REVERSE POLARITY

FILLER METAL CHEMICAL ANALYSYS %					SIZES	AMPERAGE
C	Mn	Si	Cr	Ni	2.38 mm-3/32"	50-70
0.02	1.80	0.90	25.5	12.5	3.25 mm - 1/8"	80-100
					4.0 mm - 5/32"	110-130
					5.0 mm - 3/16"	140-170