

## Coated Electrode for Stainless Steels

### Classification

EN ISO 3581-A : E 23 12 LR 12  
AWS A5.4 : E309L-17

### General Description

AS P-309L-17 is an extra low carbon rutile coated electrode. It gives a high Cr-Ni alloyed filler metal. It is especially developed for welding stainless steel to mild steel. Ferrite content is 12 % and the weld metal has a high resistance to cracking. Weld beads are highly resistant to oxidation at high operating temperatures. The excellent side wall wetting characteristic, no undercut and very fine ripple minimize crevice corrosion and grinding time. This is particularly useful in the food and drink industry where a smooth polished surface (mirror like bead appearance) is required. It can be used in all positions except vertical down. It gives a stable arc and the slag is easy to remove.

### Chemical Composition (w%), Typical, All Weld Metal

C	Si	Mn	Cr	Ni
0.03	1.00	0.70	23	13

### Mechanical Properties, Typical, All Weld Metal

Yield Strength : 460 N/mm<sup>2</sup>  
Tensile Strength : 590 N/mm<sup>2</sup>  
Elongation (L=5d) : 40 %  
Impact (ISO-V) : 70 J (+20°C)

### Applications and Materials to be Welded

AS P-309L-17 is used for welding of Cr and Cr-Ni alloyed steels that are highly resistant to operating conditions up to 1000°C. It is particularly used for joining stainless steels with low and medium alloyed steels and for root pass applications before welding of surface plated steels. It can also be used for cladding of mild steels and to form a buffer layer for hardfacing before welding with AS P-308L-17.

AS P-309L-17 is an ideal electrode especially designed for welding pipes, plates and tanks that are used in chemical, petrochemical, food and paper industries; forged and cast pieces and industrial furnaces that are exposed to high temperatures.

	EN 10088-1/-2	W. Nr.
<b>Corrosion Resistant Steels</b>	X2 CrNiN 18 10	1.4311
<b>Stainless Steel Claddings</b>	X2 CrNi 19 11	1.4306
	X4 CrNi 18 10	1.4301

### Welding Parameters / Packing and Diameter Informations / Welding Positions

Current Type and Polarity : AC min 50 V ; DC (+)

Diameter [ mm ]	Length [ mm ]	Current [ A ]	Electrode Weight [ g/100 pcs ]	Box Weight [ kg ] Quantity [ pcs/box ]	Export Box Box Weight [ kg ]
2.50	250	50 - 80	1580	1.7 / 105	1.5
3.25	300	80 - 120	3100	1.7 / 55	2.0
4.00	350	120 - 150	5490	2.2 / 40	2.5

