

# GM 309L

## EXTRA LOW CARBON AUSTENITIC STAINLESS STEEL FILLER ROD.

### IDENTIFICATION

GM 309L, ER 309L

### CLASSIFICATION

AWS A 5.9: ER309L, BS2901-90309S92,  
DIN 8556-86 WSGX2CrNi 24.12

### DESCRIPTION

Solid wire deposits a 24 % Cr / 13 % Ni austenitic stainless steel weld metal with a ferrite content about FN 12. The high alloy level and high ferrite content enables the weld metal to tolerate dilution from carbon and low alloy steels without hot cracking. Deposited weld metal is of radiographic quality.

### CHEMICAL ANALYSIS (RANGE) %

C	Mn	Si	Cr	Cu	Ni	Mo	S	P
0.03 max	1.0 - 2.50	0.30 - 0.65	23.0 - 25.0	0.50 max	12-14	0.50 max	0.03 max	0.03 max

### MECHANICAL PROPERTIES (RANGE)

TS (MPa)	EL (%) (L=4D)	CVN Impact Value	
		Temp	Joules
540 - 650	35-45	0°C	50 - 100

### TYPICAL APPLICATIONS

- Dissimilar joints between stainless and mild or low alloy steels. Joining ferritic-martensitic 410 and 430 type stainless steels.
- Buffer layer on mild and low alloy steels prior to overlaying.
- Welding of similar composition 309Mo type stainless steels, joining of 316L, 317L Steel to Carbon Steel or Low Alloy Steel.
- ASTM stainless steels 409, 409S pipe ASTM A249, A312, A409, A814 grades TP 309S, 309.

**SHIELDING GAS :** Argon + 2% O<sub>2</sub> , 16-21 l/min.

**FERRITE CONTENT IN THE WELD METAL :** 8 - 16 FN.

**WELDING CURRENT :** DC ( - )

### CORROSION RESISTANCE

Good resistance to general and intergranular corrosion. Also good resistance to oxidising acids and cold reducing acids.

### PACKING PARAMETERS

# GWELD

Size (mm)	Weight / Spool (Kg)
0.8	12.5
1	12.5
1.2	12.5