

GM 316L



SPECIFICATION :AWS/SFA 5.9 ER316L BS 2901-90 316S92 DIN 8556-86

CHARACTERISTICS :

A solid, smooth wire primarily intended for welding the low carbon, molybdenum alloyed, acid resistance 316L austenitic stainless steel of similar composition. Suitable for welding normal carbon 316 grade and Nb or Ti stabilized steel provided service temperatures are below 400C. Widely used for chemical process plants. Deposits weld metal has improved resistance to general corrosion and pitting resistance in marine and industrial environments. The deposited weld metal is of radiographic quality.

WELDING CURRENT : DC(+)

SHIELDING GAS : Ar + 2% O₂, 16-21 l/min

CORROSION RESISTANCE : Good resistance to general and intergranular corrosion in the more severe environments e.g hot dilute acids. Good resistance to chlorise pitting corrosion.

WELD METAL COMPOSITION (RANGE) %:

| C | Mn | Si | Cr | Ni | Cu | Mo | S | P |
|--------------|---------|-----------|-------|-------|-------------|---------|-------|--------------|
| 0.030 max | 1.0-2.5 | 0.30-0.65 | 18-20 | 11-14 | 0.50 max | 2.0-3.0 | 0.025 | 0.030 max |

MECHANICAL PROPERTIES OF THE WELD METAL (RANGE) :

Tensile Strength N/mm²

Charpy V-notch impact strength (joules)

| | | |
|---------|-------|---------|
| 480 min | Temp | Joule |
| | 20C | 100-140 |
| | -100C | 40-80 |

FERRITE : Ferrite no. of undiluted weld metal is in the range 3 to 10

RECOMMENDED CURRENT ANDPACKING DATA :

| SIZE (mm) | Wt. of the spool (Dia. of spool : 300mm layer to layer winding) KG |
|-----------|--|
| 0.80 | 12.50 |
| 1.0 | 12.50 |
| 1.2 | 12.50 |
| 1.60 | 12.50 |