



UP 309L

S.S. Submerged Arc Wire

Classification

AWS A 5.9: ER309L Material N° 1.4332
 ENISO 14343-B S 23 12 L

Charateristics

Solid Wire for submerged arc welding and cladding. Mainly used as first layer followed by UP 308L to get a 308L deposit. It has excellent resistance to hot cracking due to its enhanced ferrite content.

Applications

For overlay welding and joining dissimilar steels, for example austenitic stainless steels to low alloyed or non alloyed steels. It can also be used on "18-8" steels, since it overmatches the corrosion resistance, if the weld metal will not be exposed to temperatures of 538°C to 927°C. Welding of ASTM A240 Type 309S

Typical Wire Composition (%)

| C | Si | Mn | Cr | Ni | Mo | P | S |
|-------|------|------|-------|-------|------|-------|-------|
| 0.020 | 0.50 | 1.75 | 23.60 | 12.20 | 0.10 | 0.020 | 0.010 |

All Weld Metal Mechanical Properties

| Conditions | UTS Rm (MPa) | YS R _{p0.2} (MPa) | % Elg A=5d | Impact (kv) Temp. °C J |
|------------|-----------------|-------------------------------|---------------|---------------------------|
| AW | 580 | 400 | 34 | +20 95 |

Parameters

| Process | Wire Ø (mm) | Current (A) | Voltage (V) | Travel Speed (cm/min) | Flux |
|-----------------|----------------|-------------|-------------|--------------------------|--------------------------------------|
| UP/SAW DC+ve | 2.40 | 300 -350 | 25 - 28 | 45 – 55 | UP WP 380 UP WP 380M UP Inox L |
| | 3.20 | 450 - 500 | 25 - 28 | 45 – 55 | |

Packing & Storage

25 kg Spool packed in Corrugated Cardboard Boxes. Wire to be Stored in dry conditions.

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