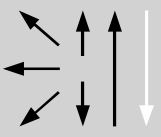


| Classifications | | | | | | |
|---|-------------------------------------|--|--|---------------------------|---------------|----------|
| EN ISO 3581-A | | | AWS A5.4 | | | |
| E 23 12 L R 3 2 | | | E309L-17 | | | |
| Characteristics and typical fields of application | | | | | | |
| <p>Avesta 309L is a high-alloy low carbon electrode designed for welding dissimilar joints between stainless and mild or low-alloy steels.</p> <p>The electrode is well suited as a buffer layer when overlay welding on mild steels, providing an 18 Cr 8 Ni deposit from the first layer.</p> <p>Avesta 309L can also be used for welding some high temperature steels, such as 1.4833/ASTM 309S.</p> <p>Corrosion resistance:</p> <p>Superior to 308L. When used for overlay welding on mild steel a corrosion resistance equivalent to that of 1.4301/ASTM 304 is obtained already in the first layer.</p> | | | | | | |
| Base materials | | | | | | |
| High-alloy low carbon electrode for surfacing unalloyed steel, joint welding molybdenum-alloyed stainless steel to unalloyed steel and for welding clad material. | | | | | | |
| Typical analysis of all-weld metal (wt.-%) | | | | | | |
| | C | Si | Mn | Cr | Ni | |
| wt.-% | 0.02 | 0.7 | 0.8 | 23.0 | 13.3 | |
| Mechanical properties of all-weld metal | | | | | | |
| Condition | Yield strength R _{p0.2} | Tensile strength R _m | Elongation (L ₀ =5d ₀) | Impact work ISO-V KV J | | Hardness |
| | MPa | MPa | % | +20 °C | -60°C | HB |
| u | 450 (≥ 320) | 550 (≥ 510) | 35 (≥ 25) | 50 | 45 | 210 |
| u untreated, as-welded | | | | | | |
| Operating data | | | | | | |
|  3D | Polarity: DC (+) AC | Electrode identification: 309L-17/309L | ø (mm) | L mm | Amps A | |
| | | | 2.0 | 300 | 35 – 60 | |
| | | | 2.5 | 300 | 50 – 80 | |
| | | | 3.2 | 350 | 80 – 120 | |
| | | | 4.0 | 450 | 100 – 160 | |
| | | | 5.0 | 450 | 160 – 220 | |
| Approvals | | | | | | |
| TÜV (03023.), DB (30.014.19), DNV, CWB | | | | | | |