

308L/MVR-PW AC/DC

| For welding steels such as Outokumpu | EN | ASTM | BS | NF | SS |
|---|--------|-------|--------|----------------|------|
| 4301 | 1.4301 | 304 | 304S31 | Z7 CN 18-09 | 2333 |
| 4307 | 1.4307 | 304L | 304S11 | Z3 CN 18-10 | 2352 |
| 4311 | 1.4311 | 304LN | 304S61 | Z3 CN 18-10 Az | 2371 |
| 4541 | 1.4541 | 321 | 321S31 | Z6 CNT 18-10 | 2337 |

Standard designations

EN 1600 E 19 9 L R
AWS A5.4 E308L-17

Characteristics

AVESTA 308L/MVR-PW is a Cr-Ni electrode with a coating optimised for vertical-up and overhead position welding of ASTM 304 and 304L stainless steels.

Thanks to the sharp and concentrated arc, PW electrodes are extremely suitable for maintenance and repair welding, especially when joint surfaces are not particularly clean.

Welding data

| DC+ or AC | Diam. mm | Current, A |
|-----------|----------|------------|
| | 1.6 | 20 – 45 |
| | 2.0 | 25 – 60 |
| | 2.5 | 35 – 80 |
| | 3.25 | 60 – 120 |
| | 4.0 | 100 – 160 |
| | 5.0 | 160 – 220 |

Weld deposit data at maximum welding current

| Electrode diam. mm | length mm | | | | | Metal recov. ~ % |
|-----------------------|--------------|------|-----|------|----|------------------------|
| | | N | B | H | T | |
| 1.6 | 250 | 0.60 | 286 | 0.51 | 25 | 106 |
| 2.0 | 250 | 0.64 | 181 | 0.71 | 28 | 105 |
| 2.5 | 300 | 0.65 | 96 | 0.94 | 40 | 105 |
| 3.25 | 350 | 0.62 | 46 | 1.48 | 53 | 107 |
| 4.0 | 350 | 0.64 | 23 | 2.07 | 56 | 105 |
| 5.0 | 350 | | | | | |

Typical analysis % (All weld metal)

| C | Si | Mn | Cr | Ni |
|------|-----|-----|------|------|
| 0.02 | 0.8 | 1.0 | 19.0 | 10.0 |

Ferrite 5 FN DeLong

Mechanical properties

| | Typical values (IIW) | Min. values EN 1600 |
|---------------------------|-------------------------|------------------------|
| Yield strength $R_{p0.2}$ | 430 N/mm ² | 320 N/mm ² |
| Tensile strength R_m | 580 N/mm ² | 510 N/mm ² |
| Elongation A_5 | 39 % | 30 % |
| Impact strength KV | | |
| +20°C | 60 J | |
| -40°C | 50 J | |
| Hardness approx. | 210 Brinell | |

Interpass temperature: Max. 150°C.

Heat input: Max. 2.0 kJ/mm.

Heat treatment: Generally none (in special cases quench annealing at 1050°C).

Structure: Austenite with 5 – 10% ferrite.

Scaling temperature: Approx. 850°C (air).

Corrosion resistance: Very good under fairly severe conditions, e.g. in oxidising acids and cold or dilute reducing acids.

Approvals

- CWB

Welding positions

