# BÖHLER AWS E316L-17

Rutile stick electrode, high-alloyed, stainless

## Classifications

| EN ISO 3581-A | AWS A5.4 |
|---|---|
| E 19 12 3 L R 3 2 | E316L-17 |

## Characteristics and typical fields of application

Rutile electrode, core wire alloyed stainless steel. Preferably used for 1.4435 / 316L steel grades. BÖHLER AWS E316L-17 is an acknowledged world leader, noted for its superior welding characteristics and metallurgy. It can be used on AC or DC. Other advantages include high current capacity, minimum spatter formation, self-releasing slag, smooth and clean weld profile, safety against formation of porosity due to moisture resistant coating and packaging into hermetically sealed tins. The fully alloyed core wire ensures the most reliable corrosion resistance. Resistant to intergranular corrosion up to +400°C.

## Base materials

1.4401 X5CrNiMo17-12-2, 1.4404 X2CrNiMo17-12-2, 1.4435 X2CrNiMo18-14-3, 1.4436 X3CrNiMo17-13-3, 1.4571 X6CrNiMoTi17-12-2, 1.4580 X6CrNiMoNb17-12-2, 1.4583 X10CrNiMoNb18-12, 1.4409 GX2CrNiMo 19-11-2

UNS S31603, S31653; AISI 316L, 316Ti, 316Cb

## Typical analysis of all-weld metal (wt.-%)

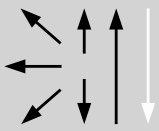
| | C | Si | Mn | Cr | Ni | Mo |
|---|---|---|---|---|---|---|
| wt.-% | ≤ 0.03 | 0.8 | 0.8 | 18.8 | 11.5 | 2.7 |

## Mechanical properties of all-weld metal

| Condition | Yield strength $R_{p0.2}$ | Tensile strength $R_m$ | Elongation A ($L_0$=5$d_0$) | Impact work ISO-V KV J | |
|---|---|---|---|---|---|
| | MPa | MPa | % | +20°C | -120°C |
| u | **460** (≥ 320) | **600** (≥ 510) | **36** (≥ 25) | **70** | ≥ 32 |

u untreated, as welded

## Operating data



| Polarity: | Redrying: | Electrode identification: | ø (mm) | L (mm) | Amps A |
|---|---|---|---|---|---|
| DC ( + ) / AC | if necessary 120 – 200°C, min. 2 h | 316L-17 | 2.5<br>3.2<br>4.0 | 350<br>350<br>350 | 50 – 90<br>80 – 120<br>110 – 160 |

## Approvals

TÜV (10648.), GL (4571), ABS, CE