

UTP A 68 Mo

stainless steels

Classifications

solid wire

EN ISO 14343-A

AWS A5.9

Material-No.

G 19 12 3 Nb (Si)

ER 318 (Si)

1.4576

Characteristics and field of use

UTP A 68 Mo is applicable for joinings and surfacings of stabilized, corrosion resistant CrNiMo steels of similar nature in the construction of chemical apparatus and vessels up to working temperatures of 120 °C up to 400 °C.

Base materials

| | |
|--------|---------------------|
| 1.4404 | X2 CrNiMo 17-12-2 |
| 1.4435 | X2 CrNiMo 18-14-3 |
| 1.4436 | X3 CrNiMo 17-13-3 |
| 1.4571 | X6 CrNiMoTi 17-12-2 |
| 1.4580 | X6 CrNiMoNb 17-12-2 |
| 1.4583 | X10 CrNiMoNb 18-12 |
| 1.4409 | G-X2 CrNiMo 19-112 |

UNS S31653; AISi 361L; 316Ti; 316Cb

Typical analysis in %

| C | Si | Mn | Cr | Mo | Ni | Nb | Fe |
|------|------------|-----|------|-----|------|------|---------|
| 0.03 | 0.65 – 1.0 | 1.5 | 19.0 | 2.8 | 11.5 | 0.55 | balance |

Mechanical properties of the weld metal

| Yield strength $R_{p0.2}$ | Tensile strength R_m | Elongation A | Impact strength K_v |
|---------------------------|------------------------|----------------|-----------------------|
| MPa | MPa | % | J (RT) |
| 460 | 680 | 35 | 100 |

Welding instructions

Degrease and clean weld area thoroughly (metallic bright).
Preheating and post heat treatment are usually not necessary.

Approvals

TÜV (No. 04867)

Form of delivery and recommended welding parameters

| Wire diameter [mm] | Current type | Shielding gas (EN ISO 14175) | | |
|--------------------|--------------|------------------------------|------|------|
| 0.8 | DC (+) | M 11 | M 12 | M 13 |
| 1.0 | DC (+) | M 11 | M 12 | M 13 |
| 1.2 | DC (+) | M 11 | M 12 | M 13 |