

| Classifications | | | | | | |
|--|---------------------|------------------------|------|------------------------------|------|-----------------------|
| EN ISO 14343-A | AWS A5.9 | | | Material-No. | | |
| G 19 12 3 L (Si) | ER 316 L (Si) | | | 1.4430 | | |
| Characteristics and field of use | | | | | | |
| UTP A 68 MoLC is used for joining and surfacing of low-carbon, corrosion resistant CrNiMo steels exposed to high corrosion environments. For service temperatures up to + 350 °C. Application fields are chemical apparatus and vessels. | | | | | | |
| Base materials | | | | | | |
| 1.4401 | X5 CrNiMo 17-12-2 | | | | | |
| 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 | GX2 CrNiMo 19-11-2 | | | | | |
| S31653, AISi 316 L, 316 Ti, 316 Cb | | | | | | |
| Typical analysis in % | | | | | | |
| C | Si | Mn | Cr | Mo | Ni | Fe |
| 0.02 | 0.65 – 1.0 | 1.5 | 18.5 | 2.8 | 12.0 | 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) |
| 420 | | 600 | | 35 | | 100 |
| Welding instruction | | | | | | |
| Degrease and clean weld area thoroughly (metallic bright). Preheating and post heat treatment are usually not necessary. | | | | | | |
| Approvals | | | | | | |
| TÜV (No. 00188), GL | | | | | | |
| 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 |