



# CEWELD 318Si

**TYPE** Solid stabilized stainless steel welding wire with high Mo content

**APPLICATIONS** CEWELD® 318Si is ideal for joining and overlay welding of identical or similar austenitic CrNi(N) and CrNiMo(N) steel grades as well as cast steel alloys. It is ideal for welding titanium- or niobium-stabilized austenitic stainless steels containing molybdenum. It is suitable for structures in the chemical industry, such as apparatus and containers, which are exposed to operating temperatures of approximately -120 °C to 400 °C.

**PROPERTIES** CEWELD® 318Si exhibits excellent corrosion resistance, as required in the chemical industry at temperatures up to 400°C, with good weldability and excellent flow properties due to its increased silicon content.

**CLASSIFICATION**

|        |                          |
|--------|--------------------------|
| AWS    | A 5.9: ~ER318            |
| EN ISO | 14343-A: G 19 12 3 Nb Si |
| W.Nr.  | 1.4576                   |
| F-nr   | 6                        |
| FM     | 5                        |

**SUITABLE FOR** **ISO 15608: 8.1 Austenitic  $\leq$  19 % Cr**  
1.4301, 1.4306, 1.4401, 1.4404, 1.4408, 1.4420, 1.4435, 1.4436, 1.4541, 1.4550, 1.4571, 1.4573, 1.4579, 1.4580, 1.4581, 1.4583  
X 6 CrNiMoTi 17 12 2, X10 CrNiMoTi 18 12, X 6 CrNiMoNb 17 12 2, G-X 5 CrNiMoNb 18 10, X 10 CrNiMoNb 18 12, X 5 CrNiMo 18 11, X 2 CrNiMo 17 13 2, G-X 2 CrNiMo 18 10, X 2 CrNiMo 18 14 3, X 5 CrNiMo 17 12 2, G-X 6 CrNiMo 18 10, X 5 CrNiMo 17 13 3, X6CrNiMoTi17-12-2S  
UNS S31600, S31603, S31635, S31640, S31653,  
AISI 316, 316L, 316Ti, 316Cb

**APPROVALS** TÜV: (12390), CE, DB: (43.206.03)

**WELDING POSITIONS**



**TYPICAL CHEMICAL ANALYSIS OF THE FILLER METAL (%)**

| C    | Si  | Mn | Cr | Ni   | Mo  | Nb  |
|------|-----|----|----|------|-----|-----|
| 0.07 | 0.5 | 2  | 19 | 12.5 | 2.8 | 0.5 |

**MECHANICAL PROPERTIES**

| Heat Treatment | R <sub>P0.2</sub> (MPa) | R <sub>m</sub> (MPa) | A <sub>5</sub> (%) | Impact Energy (J) ISO-V |       | Hardness |
|----------------|-------------------------|----------------------|--------------------|-------------------------|-------|----------|
|                |                         |                      |                    | RT                      | -60°C |          |
| As Welded      | 460                     | 615                  | 35                 | 100                     | 70    | HRc      |

**REDRYING** Not required

**GAS ACC. EN ISO 14175** M13, M12



# CEWELD 318Si

## 318SI 0,8MM

| Packaging | KG/unit | EanCode       |
|-----------|---------|---------------|
| BS-300    | 15      | 8720663415103 |
| D-200     | 5       | 8720663415110 |

## 318SI 1,0MM

| Packaging | KG/unit | EanCode       |
|-----------|---------|---------------|
| BS-300    | 15      | 8720663415127 |
| D-200     | 5       | 8720663415141 |
| Drum      | 250     | 8720663415134 |

## 318SI 1,2MM

| Packaging | KG/unit | EanCode       |
|-----------|---------|---------------|
| BS-300    | 15      | 8720663415158 |

## 318SI 1,6MM

| Packaging | KG/unit | EanCode       |
|-----------|---------|---------------|
| BS-300    | 15      | 8720663415165 |