CEWELD®

# 316 LSi Tig

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|---|---|
| CATEGORY | GMAW-GTAW Solid wires |
| TYPE | Solid stainless steel filler metal with excelent resistance against general corrosion. |
| APPLICATIONS | The alloy is widely used in the chemical and food-processing industries, as well as in shipbuilding and various types of architectural structure. |
| PROPERTIES | 316LSi offers good general corrosion resistance, particularly to corrosion in acid and chlorinated environments. The alloy has a low carbon content which makes it particularly recommended when there is a risk of intergranular corrosion. The higher silicon content improves the welding properties such as wetting and results in a bright seam. |

CLASSIFICATION

| | |
|---|---|
| AWS | A 5.9: ER 316LSi |
| EN ISO | 14343-A: W 19 12 3 L Si |
| DIN: W.Nr. | 1.4430 |
| DIN | 8556: SG X2 CrNiMo 19.12 |

SUITABLE FOR

| | | | |
|---|---|---|---|
| 1.4583 | X102CrNiMoNb 18 12 | 316Cb | UNS S31640 |
| 1.4435 | X2CrNiMo 18 14 3 (TP) | 316L | . |
| 1.4436 | X4CrNiMo 17 13 3 | - | . |
| 1.4404 | X2CrNiMo 17 12 2 (TP) | 316L | UNS S31603 |
| 1.4406 | - | 316LN | UNS S31653 |
| 1.4408 | X 5 CrNiMo 19 11 2 | 316H | . |
| 1.4401 | X4CrNiMo 17 12 2 (TP) | 316 | UNS S31600 |
| 1.4571 | X6CrNiMo 17 12 2 | 316 Ti | UNS S31635 |
| 1.4580 | X6CrNiMoNb 17 12 3 | 316Cb | . |
| 1.4406 | X2CrNiMoN 17 12 3 (TP) | 316LN | |

APPROVALS: TUV (12389.00), CE approved

WELDING POSITIONS:


## WELD DEPOSIT ANALYSIS

| C | Mn | Si | Cr | Ni | Mo |
|---|---|---|---|---|---|
| <0.02 | 1.7 | 0.8 | 18.8 | 12.5 | 2.6 |

## MECHANICAL PROPERTIES

| Heat Treatment | $R_{P0,2}$ (N/mm$^2$) | Rm (N/mm$^2$) | A5 (%) | Impact Energy (J) ISO-V +20°C | -40°C | -196°C | Hardness HRc / HV |
|---|---|---|---|---|---|---|---|
| AW | 440 | 620 | 37 | 120 | | 55 | |

AW: as welded

## WELDING PARAMETERS / PACKING

| Welding Parameters | | Packing (kg) | |
|---|---|---|---|
| D (mm) | Current (A) DC- | single | master |
| 1.0 x 1000 | 20-50 | 5 | 25 |
| 1.2 x 1000 | 30-70 | 5 | 25 |
| 1.6 x 1000 | 50-80 | 5 | 25 |
| 2.0 x 1000 | 70-110 | 5 | 25 |
| 2.4 x 1000 | 110-180 | 5 | 25 |

REDRYING TEMPERATURE: not required