

SA 316L

CATEGORY SAW Submerged arc

TYPE Solid stainless steel welding wire for submerged arc welding

APPLICATIONS The alloy is widely used in the chemical and food-processing industries, as well as in shipbuilding, vessel and various types of architectural structure. Suitable for welding corrosion-resistant Cr-Ni-Mo steels with extremely low C-content at working temperatures up to 350°C.

PROPERTIES SA 316L 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. Best to be used with our fused flux [Ceweld FL 880](#)

CLASSIFICATION

| | |
|------------|----------------------|
| AWS | A 5.9: ER 316L |
| EN ISO | 14343-A: S 19 12 3 L |
| DIN: W.Nr. | 1.4430 |

| | | | | |
|---------------------|--------|------------------------|--------|------------|
| 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 CE approved

WELDING POSITIONS:



WELD DEPOSIT WEIGHT %

| C | Mn | Si | Cr | Ni | Mo | Nb | Cu | Co |
|-------|---------|---------|-----------|-----------|---------|-------|------|------|
| <0,02 | 1,5-2,0 | 0,3-0,6 | 18,0-19,2 | 12,0-13,0 | 2,5-3,0 | <0,05 | <0,3 | <0,2 |

MECHANICAL PROPERTIES

| Heat Treatment | Rp0,2 (N/mm ²) | Rm (N/mm ²) | A5 (%) | Impact Energy (J) ISO-V | | | Hardness HRc / HV |
|----------------|----------------------------|-------------------------|--------|-------------------------|-------|-------|-------------------|
| | | | | 20°C | -40°C | -60°C | |
| AW | >370 | >520 | >33 | >70 | | | |

AW: as welded

WELDING PARAMETERS / PACKING

| D (mm) | Welding Parameters | | | Packing | |
|--------|--------------------|-------------|------------|------------|-------------|
| | Voltage (V) | Current (A) | spool type | kg / spool | kg / pallet |
| 1,6 | 27-30 | 200-300 | K-415 | 25 | 1050 |
| 2,4 | 29-33 | 300-400 | K-415 | 25 | 1050 |
| 3,2 | 29-33 | 350-500 | K-415 | 25 | 1050 |
| 4,0 | 30-36 | 400-600 | K-415 | 25 | 1050 |

REDRYING TEMPERATURE Not required