

317L Tig

CATEGORY GMAW-GTAW Solid wires

TYPE Solid stainless steel Tig welding wire with high Molybdenum content.

APPLICATIONS For welding stabilized and un-stabilized CrNiMo(N) type of steels with high corrosion resistance. Also suitable for dissimilar welds between steel and stainless steel or dissimilar stainless steels. 317L has good resistance to general corrosion and pitting due to its high content of molybdenum. The alloy has a low carbon content which makes it particularly recommended when there is a risk of intergranular corrosion. The alloy is used in severe corrosion conditions such as in the petrochemical, pulp, cotton and paper industries.

PROPERTIES Austenitic, non magnetic stainless steel alloy with high mechanical properties and excellent weldability, corrosion resistance is better than AISI 316 due to the high Mo. content. Suitable for use up to 400°C

CLASSIFICATION

| | |
|------------|--|
| AWS | A 5.9: ER 317L |
| EN ISO | 14343-A: W Z 19 14 4 L 14343-B: SS 317L |
| DIN: W.Nr. | 1.4453 |
| DIN | 8556: SG-X2CrNiMo 19 14 4 |

SUITABLE FOR 1.4439, 1.4429, 1.4438, 1.4583, X2CrNiMoN 17 13 5, X2CrNiMoN 17 13 3, X2CrNiMo 18 15 4, X10CrNiMoNb 18 12, 317LN, (TP)316LN, 317L, non magnetic, ferrite free.

APPROVALS CE approved

WELDING POSITIONS:



WELD DEPOSIT ANALYSIS

| C | Mn | Si | Cr | Ni | Mo | N |
|------|-----|-----|------|------|-----|------|
| 0.03 | 3.5 | 0.3 | 18.5 | 13.5 | 4.5 | 0.12 |

MECHANICAL PROPERTIES

| Heat Treatment | R _{p0,2} (N/mm ²) | R _m (N/mm ²) | A ₅ (%) | Impact Energy (J) ISO-V | | | Hardness HRC / HV |
|----------------|---|--|-----------------------|-------------------------|-------|-------|----------------------|
| | | | | +20°C | -40°C | -60°C | |
| AW | >380 | >580 | >35 | >90 | | | |

AW: as welded

WELDING PARAMETERS / PACKING

| D (mm) | Welding Parameters Current (A) DC- | Packing (kg) | |
|------------|---------------------------------------|--------------|--------|
| | | single | master |
| 1.6 x 1000 | 50-80 | 5 | 25 |
| 2.0 x 1000 | 70-110 | 5 | 25 |
| 2.4 x 1000 | 110-180 | 5 | 25 |
| 3.2 x 1000 | 150-250 | 5 | 25 |

REDRYING TEMPERATURE not required

GAS ACC. EN ISO 14175: I1