

KST-316L-17

For stainless steel (Low C, 18%Cr-12% Ni-Mo)

Classifications

| | |
|--------------------|--------------------|
| EN ISO 3581-A:2012 | : E 19 12 3 L R 12 |
| EN ISO 3581-B:2012 | : ES316L-17 |
| AWS A5.4-06 | : E316L-17 |
| KS D 7014 | : E316L-16 |
| JIS Z 3221 | : ES316L-17 |

Description

- Covering is lime titania type for welding of 18%Cr-12%Ni stainless steel (AISI 316) or dissimilar steels.
- As low carbon welded can be obtained, intergranular corrosion resistance is superior to that of E316 type.
- Good crack resistance and usability of austenitic structure with suitable ferrite of the deposited W.M.
- Excellent usability with direct current applications.

Welding positions



Typical chemical composition of all-weld metal (%)

| C | Si | Mn | P | S | Ni | Cr | Mo | Cu | FN |
|------|------|------|-------|-------|-------|-------|------|------|-----|
| 0.03 | 0.75 | 0.80 | 0.028 | 0.011 | 11.71 | 18.02 | 2.75 | 0.12 | 6.2 |

*FN: WRC 1992

Typical mechanical properties of all-weld metal

| | Yield Strength (0.2%OS) | Tensile Strength | Elongation | Impact Value (J) | | Remarks |
|---------------|----------------------------|------------------|------------|------------------|---------|---------|
| | (MPa) | (MPa) | (%) | -20 °C | -196 °C | |
| AWS A5.4 | | Min. 490 | Min. 30 | | | |
| EN ISO 3581-A | Min. 320 | Min. 510 | Min. 25 | | | |
| Example | 420 | 590 | 45 | 75 | 26 | AW |

*AW: As-welded

Sizes available and recommended currents (AC or DC +)

| Diameter | (mm) | 2.0 | 2.6 | 3.2 | 4.0 | 5.0 |
|----------|-------|-------|-------|--------|---------|---------|
| Length | (mm) | 250 | 300 | 350 | 350 | 350 |
| Amperage | F | 40-50 | 55-70 | 80-110 | 120-150 | 140-180 |
| | V. OH | 35-45 | 45-60 | 70-90 | 90-130 | - |