

OK 63.30



Extra low carbon stainless steel electrode for welding steels of the 18Cr 12Ni 2.8Mo-type. Also suitable for welding of stabilized stainless steels of similar composition, except when the full creep resistance of the base metal is to be met.

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|------------------------|--|
| Classifications | EN ISO 3581-A : E 19 12 3 L R 1 2 SFA/AWS A5.4 : E316L-17 CSA W48 : E316L-17 Werkstoffnummer : 1.4430 |
| Approvals | ABS : E316L-17 BV : 316L CE : EN 13479 CWB : E316L-17 DB : 30.039.06 DNV-GL : VL 316 L LR : 316L NAKS/HAKC : 2.5-4.0 mm Seproz : UNA 272580 VdTÜV : 00262 |

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|------------------------|-------------------|
| Welding Current | DC+, AC |
| Ferrite Content | FN 3-10 |
| Alloy Type | Austenitic CrNiMo |
| Coating Type | Acid Rutile |

Typical Tensile Properties

| Condition | Yield Strength | Tensile Strength | Elongation |
|------------|--------------------|--------------------|------------|
| ISO | | | |
| As Welded | 460 MPa (67 ksi) | 570 MPa (83 ksi) | 40 % |

Typical Charpy V-Notch Properties

| Condition | Testing Temperature | Impact Value |
|------------|---------------------|-------------------|
| ISO | | |
| As Welded | 20 °C (68 °F) | 60 J (44 ft-lb) |
| As Welded | -20 °C (-4 °F) | 55 J (41 ft-lb) |
| As Welded | -60 °C (-76 °F) | 43 J (32 ft-lb) |

Typical Weld Metal Analysis %

| C | Mn | Si | Ni | Cr | Mo | N | Ferrite FN |
|------|-----|-----|------|------|-----|------|------------|
| 0.02 | 0.6 | 0.8 | 11.0 | 18.1 | 2.6 | 0.10 | 6 |

Deposition Data

| Diameter | Current | Voltage | Efficiency (%) | Number of electrodes/kg weld metal | Fusion time per electrode at 90% I max | Deposition Rate |
|--|---------|---------|----------------|------------------------------------|--|---------------------------|
| 1.6 x 300.0 mm (1/16 x 11.8 in.) | 30-45 A | 29 V | 56 % | 250 | 37 sec | 0.4 kg/h (0.9 lbs/h) |
| 2.0 x 300.0 mm (5/64 x 11.8 in.) | 45-65 A | 29 V | 60 % | 147 | 39 sec | 0.6 kg/h (1.3 lbs/h) |
| 2.5 x 300.0 mm (0.098 x 11.8 in.) | 45-90 A | 29 V | 55 % | 96 | 45 sec | 0.9 kg/h (2.0 lbs/h) |



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| Deposition Data | | | | | | |
|--|-----------|---------|----------------|------------------------------------|--|---------------------------|
| Diameter | Current | Voltage | Efficiency (%) | Number of electrodes/kg weld metal | Fusion time per electrode at 90% I max | Deposition Rate |
| 3.2 x 350.0 mm (1/8 x 13.8 in.) | 60-125 A | 30 V | 55 % | 52 | 57 sec | 1.4 kg/h (3.1 lbs/h) |
| 4.0 x 350.0 mm (5/32 x 13.8 in.) | 70-190 A | 32 V | 56 % | 34 | 57 sec | 2.0 kg/h (4.4 lbs/h) |
| 5.0 x 350.0 mm (0.197 x 13.8 in.) | 100-280 A | 32 V | 56 % | 21 | 63 sec | 3.0 kg/h (6.6 lbs/h) |