

## OK Autrod 317L

A continuous solid corrosion resisting chromium-nickel-molybdenum wire for welding of austenitic stainless alloys of 19% Cr 13% Ni 3% Mo types. OK Autrod 317L has a good resistance to general corrosion and pitting due to its high content of molybdenum. The alloy has a low carbon content which makes this alloy particularly recommended where there is a risk of intergranular corrosion. The alloy is used in severe corrosion conditions such as in the petrochemical, pulp and paper industries.

### Specifications

|                        |   |
|------------------------|---|
| <b>Classifications</b> | EN ISO 14343-A : G 18 15 3 L<br>SFA/AWS A5.9 : ER317L |
|------------------------|---|

|                      |                                       |
|----------------------|---------------------------------------|
| <b>Alloy Type</b>    | Austenitic (with approx. 8 % ferrite) |
| <b>Shielding Gas</b> | M12, M13 (EN ISO 14175)               |

### Typical Tensile Properties

| Condition | Yield Strength     | Tensile Strength   | Elongation |
|-----------|--------------------|--------------------|------------|
| As Welded | 390 MPa ( 57 ksi ) | 600 MPa ( 87 ksi ) | 45 %       |

### Typical Charpy V-Notch Properties

| Condition | Testing Temperature | Impact Value        |
|-----------|---------------------|---------------------|
| As Welded | 20 °C ( 68 °F )     | 135 J ( 100 ft-lb ) |
| As Welded | -196 °C ( -321 °F ) | 55 J ( 41 ft-lb )   |

### Typical Wire Composition %

| C    | Mn  | Si  | Ni   | Cr   | Mo  | N    | FN WRC-92 |
|------|-----|-----|------|------|-----|------|-----------|
| 0.01 | 1.4 | 0.4 | 13.6 | 18.9 | 3.6 | 0.05 | 7         |

### Deposition Data

| Diameter                | Current   | Voltage | Wire Feed Speed                       | Deposition Rate                   |
|-------------------------|-----------|---------|---------------------------------------|-----------------------------------|
| 0.8 mm<br>( 0.030 in. ) | 50-140 A  | 16-22 V | 3.4-11.0 m/min<br>( 134-433 in./min ) | 0.8-2.7 kg/h<br>( 1.8-6.0 lbs/h ) |
| 1.0 mm<br>( 0.040 in. ) | 80-190 A  | 16-24 V | 2.6-7.1 m/min<br>( 102-280 in./min )  | 0.9-2.7 kg/h<br>( 2.0-6.0 lbs/h ) |
| 1.2 mm<br>( 0.047 in. ) | 180-280 A | 20-28 V | 4.9-8.5 m/min<br>( 193-335 in./min )  | 2.6-4.5 kg/h<br>( 5.7-9.9 lbs/h ) |
| 1.6 mm<br>( 1/16 in. )  | 230-350 A | 24-28 V | 3.2-5.5 m/min<br>( 126-217 in./min )  | 3.0-5.2 kg/h<br>( 6.6-11. lbs/h ) |