

## Exaton 316L

316L is used for joining stainless CrNiMo and CrNi steels, stabilized or non-stabilized, e.g. ASTM 316, 316L and 316Ti as well as 304, 304L, 321 and 347, used for service temperatures up to 400°C (750°F). It is also used for Cr steels with max. 19% Cr. It is used for MIG/MAG welding.

|                                       |   |
|---------------------------------------|---|
| <b>Classifications Wire Electrode</b> | SFA/AWS A5.9 : ER316L<br>EN ISO 14343-A : G 19 12 3 L<br>Werkstoffnummer : 1.4430 |
| <b>Approvals</b>                      | CE EN 13479   |

Approvals are based on factory location. Please contact ESAB for more information.

|                      |  |
|----------------------|--|
| <b>Alloy Type</b>    | Austenitic (with appr. 8 % ferrite) 19 % Cr - 12 % Ni - 3 % Mo - Low C |
| <b>Shielding Gas</b> | M12, M13 (EN ISO 14175)  |

### Typical Charpy V-Notch Properties

| Condition | Testing Temperature | Impact Value      |
|-----------|---------------------|-------------------|
| As Welded | 20 °C (68 °F)       | 150 J (111 ft-lb) |
| As Welded | -40 °C (-40 °F)     | 130 J (96 ft-lb)  |
| As Welded | -196 °C (-321 °F)   | 75 J (56 ft-lb)   |

### Typical Weld Metal Analysis %

| C     | Mn  | Si  | S     | P     | Ni | Cr | Mo  | Cu  | N    |
|-------|-----|-----|-------|-------|----|----|-----|-----|------|
| <0.02 | 1.7 | 0.4 | <0.02 | <0.03 | 12 | 18 | 2.5 | 0.1 | 0.05 |

### Typical Weld Metal Analysis %

| Nb   | FN WRC-92 |
|------|-----------|
| 0.01 | 7         |

### Typical Wire Composition %

| C     | Mn  | Si  | S     | P      | Ni | Cr   | Mo  | Cu  | N    |
|-------|-----|-----|-------|--------|----|------|-----|-----|------|
| 0.015 | 1.7 | 0.4 | 0.015 | <0.025 | 12 | 18.5 | 2.6 | 0.1 | 0.04 |

### Typical Wire Composition %

| Nb   | FN WRC-92 |
|------|-----------|
| 0.02 | 9         |

### Recommended Welding Parameters

| Wire Diameter         | Current   | Voltage | Wire Feed Speed                     |
|-----------------------|-----------|---------|-------------------------------------|
| 0.8 mm<br>(0.030 in.) | 40-120 A  | 15-19 V | 4.0-8.0 m/min<br>(157-315 in./min)  |
| 1.0 mm<br>(0.040 in.) | 60-220 A  | 15-28 V | 4.0-12.0 m/min<br>(157-472 in./min) |
| 1.2 mm<br>(0.047 in.) | 150-260 A | 24-29 V | 3.0-10.0 m/min<br>(118-394 in./min) |
| 1.6 mm<br>(1/16 in.)  | 230-350 A | 25-30 V | 3.0-5.0 m/min<br>(118-197 in./min)  |