

## Exaton 20.25.5.LCuR

Exaton 20.25.5.LCuR is a covered electrode with type with rutile-basic coating and normal recovery, used for welding of high-alloy austenitic stainless of UNS N08904 type, also known as 904L (e.g. Alleima 2RK65). Exaton 20.25.5.LCuR gives a fully austenitic chromium-nickel-molybdenum weld metal with especially low carbon content and copper addition. Spray transfer gives a bead with a finely rippled surface, little spatter and good slag removal. It is suitable for joining steels of the 20Cr/25Ni/4.5Mo/1.5Cu type such as 904L (e.g. Alleima 2RK65) used in many areas of the process industry, such as in the production of acetic acid, sulphuric acid, terephthalic or tartaric acid and vinyl chloride as well as other chloride containing media. It is also suitable for use in cooling operations involving sea water or heavily polluted river water. Exaton 20.25.5.LCuR may also be used to join 317L where improved corrosion resistance in specific media is required. These electrodes may be used to join Alleima 2RK65, 904L and 317L to other grades of stainless steel.

### Specifications

|                        |                                                                                              |
|------------------------|----------------------------------------------------------------------------------------------|
| <b>Classifications</b> | EN ISO 3581-A : E 20 25 5 Cu N L R 3 2<br>SFA/AWS A5.4 : E385-16<br>Werkstoffnummer : 1.4519 |
| <b>Approvals</b>       | CE : EN 13479<br>VdTÜV : 02805                                                               |

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

|                        |                   |
|------------------------|-------------------|
| <b>Welding Current</b> | AC, DC+           |
| <b>Ferrite Content</b> | FN 0              |
| <b>Alloy Type</b>      | Austenitic CrNiMo |
| <b>Coating Type</b>    | Basic Rutile      |

### Tensile Properties

| Testing Condition | Yield Strength | Tensile Strength | Elongation |
|-------------------|----------------|------------------|------------|
| ISO               |                |                  |            |
| As Welded         | 410 MPa        | 590 MPa          | 35 %       |

### Charpy Testing

| Testing Condition | Testing Temp | Impact Value |
|-------------------|--------------|--------------|
| ISO               |              |              |
| As Welded         | 20 °C        | 65 J         |

### Typical Weld Metal Analysis %

| C    | Mn | Si  | S     | P     | Ni | Cr | Mo  | Cu  | N    |
|------|----|-----|-------|-------|----|----|-----|-----|------|
| 0.03 | 1  | 0.5 | 0.005 | 0.019 | 25 | 20 | 4.7 | 1.5 | 0.10 |

### Typical Weld Metal Analysis %

| FN WRC-92 | PREN |
|-----------|------|
| 0         | 36   |

### Deposition Data

| Diameter       | Amps     | Volts | Efficiency (Per) | Fusion time per electrode at 90Per I max | Deposition rate at 90Per |
|----------------|----------|-------|------------------|------------------------------------------|--------------------------|
| 2.5 x 300.0 mm | 60-85 A  | 24 V  | 60 %             | 44 sec                                   | 0.9 kg/h                 |
| 3.2 x 350.0 mm | 85-130 A | 27 V  | 58 %             | 60 sec                                   | 1.5 kg/h                 |
| 4.0 x 350.0 mm | 95-180 A | 29 V  | 51 %             | 64 sec                                   | 1.9 kg/h                 |