

## Exaton 22.9.3.LB

Exaton 22.9.3.LB is a chromium-nickel-molybdenum-nitrogen covered electrode with basic coating for welding of 22-23%Cr duplex (austenitic-ferritic) stainless steels (e.g. SAF 2205). The basic type of electrode combines good welding properties in all positions and high impact strength at low temperatures. The weld metal is characterized by high strength and very good pitting corrosion resistance as well as very good resistance to stress corrosion cracking in chloride containing media. Exaton 22.9.3.LB is used for welding of duplex and lean duplex stainless steels in service temperatures up to 280°C (536°F). It is also used in applications where good impact toughness properties is required below -40°C. Typical base materials to be welded are ISO: 1.4462, 1.4362, 1.4162, 1.4662, 1.4660 and 1.4417.

| Specifications         |                                                                                       |
|------------------------|---------------------------------------------------------------------------------------|
| <b>Classifications</b> | EN ISO 3581-A : E 22 9 3 N L B<br>SFA/AWS A5.4 : E2209-15<br>Werkstoffnummer : 1.4462 |
| <b>Approvals</b>       | BV : E2209-15<br>CE : EN13479<br>DNV : Duplex<br>UKCA : EN13479                       |

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

|                        |                |
|------------------------|----------------|
| <b>Welding Current</b> | DC+            |
| <b>Ferrite Content</b> | FN 35-50       |
| <b>Alloy Type</b>      | Duplex CrNiMoN |
| <b>Coating Type</b>    | Basic          |

| Tensile Properties |                |                  |            |
|--------------------|----------------|------------------|------------|
| Testing Condition  | Yield Strength | Tensile Strength | Elongation |
| ISO                |                |                  |            |
| As Welded          | 670 MPa        | 840 MPa          | 27 %       |

| Charpy Testing    |              |              |
|-------------------|--------------|--------------|
| Testing Condition | Testing Temp | Impact Value |
| ISO               |              |              |
| As Welded         | -46 °C       | 80 J         |
| As Welded         | 20 °C        | 110 J        |
| As Welded         | -60 °C       | 67 J         |

| Typical Weld Metal Analysis % |    |     |         |        |    |    |     |     |      |
|-------------------------------|----|-----|---------|--------|----|----|-----|-----|------|
| C                             | Mn | Si  | S       | P      | Ni | Cr | Mo  | Cu  | N    |
| <=0.04                        | 1  | 0.6 | <=0.025 | <=0.03 | 9  | 23 | 3.2 | 0.1 | 0.18 |

| Typical Weld Metal Analysis % |                  |
|-------------------------------|------------------|
| <b>PRE</b>                    | <b>FN WRC-92</b> |
| >=35                          | 44               |

| 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  | 55-80 A  | 24 V  | 56 %             | 49 sec                                   | 0.7 kg/h                 |
| 3.2 x 350.0 mm  | 70-115 A | 24 V  | 60 %             | 61 sec                                   | 1.2 kg/h                 |
| 4.0 x 350.0 mm  | 90-175 A | 25 V  | 57 %             | 62 sec                                   | 1.6 kg/h                 |