

## Exaton 2209



2209 is a chromium-nickel-molybdenum-nitrogen covered electrode with basic coating for welding of 22-23%Cr duplex (austenitic-ferritic) stainless steels (e.g. Sandvik 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.

2209 is used for welding of duplex and lean duplex stainless steels in service temperatures up to 280°C (536°F), where good impact strength at temperatures below -40°C is required.

Typical base materials to be welded are ISO: 1.4462, 1.4362, 1.4162, 1.4662, 1.4660 and 1.4417.

<b>Classifications</b>	SFA/AWS A5.4 : E2209-15 EN ISO 3581-A : E 22 9 3 N L B Werkstoffnummer : 1.4462
<b>Approvals</b>	BV 2209 CE 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

### Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
<b>ISO</b>			
As Welded	670 MPa (97 ksi)	840 MPa (122 ksi)	27 %

### Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
<b>ISO</b>		
As Welded	20 °C (68 °F)	110 J (81 ft-lb)
As Welded	-46 °C (-51 °F)	80 J (59 ft-lb)
As Welded	-60 °C (-76 °F)	67 J (50 ft-lb)

### 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 %

PRE	FN WRC-92
>=35	44

### Deposition Data

Diameter	Current	Voltage	Number of electrodes/ kg weld metal	Burn-off Time/ Electrode	Deposition Efficiency %	Deposition Rate @ 90% I max
2.5 x 300.0 mm (0.098 x 11,8 in.)	55-80 A	24 V	103	49 sec	56 %	0.7 kg/h (1,5 lb/h)
3.2 x 350.0 mm (1/8 x 13,8 in.)	70-115 A	24 V	51	61 sec	60 %	1.2 kg/h (2,6 lb/h)
4.0 x 350.0 mm (5/32 x 13,8 in.)	90-175 A	25 V	36	62 sec	57 %	1.6 kg/h (3,5 lb/h)
5.0 x 350.0 mm (0.197 x 13,8 in.)	120-230 A	26 V	23	67 sec	55 %	2.4 kg/h (5,3 lb/h)