

Exaton 2594

2594 is a high alloyed chromium-nickel-molybdenum-nitrogen covered electrode with basic coating for welding of 25%Cr- and superduplex stainless steels. The basic type of electrode combines good welding properties in all positions with high impact strength at low temperatures. The weld metal is characterized by high strength and very good corrosion resistance. Examples are: excellent stress corrosion cracking resistance, excellent pitting resistance in chloride-containing media, high resistance to general corrosion, high resistance to erosion corrosion and corrosion fatigue. 2594 is used for welding of super duplex stainless steels in service temperatures up to 280°C (536°F), where good impact strength at temperatures down to -50°C is required. Common steel types include: ISO 1.4410, 1.4501 and 1.4507; UNS: S32750, S32760, S31260 and S32550. It can also be used as overmatching consumable for 21-23%Cr duplex stainless steels.

Specifications	
Classifications	EN ISO 3581-A : E 25 9 4 N L B SFA/AWS A5.4 : E2594-15 Werkstoffnummer : (1.4410)
Approvals	CE : EN 13479 UKCA : EN 13479

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

Welding Current	DC+
Ferrite Content	FN 35-55
Alloy Type	Austenitic-Ferritic CrNiMo
Coating Type	Basic

Typical Tensile Properties			
Condition	Yield Strength	Tensile Strength	Elongation
ISO			
As Welded	750 MPa (109 ksi)	915 MPa (133 ksi)	26 %

Typical Charpy V-Notch Properties		
Condition	Testing Temperature	Impact Value
ISO		
As Welded	-50 °C (-58 °F)	45 J (33 ft-lb)
As Welded	20 °C (68 °F)	85 J (63 ft-lb)

Typical Weld Metal Analysis %									
C	Mn	Si	S	P	Ni	Cr	Mo	Cu	N
0.03	0.8	0.6	<=0.025	<=0.03	10	25	4	0.07	0.25

Typical Weld Metal Analysis %	
PRE	FN WRC-92
>=42	40

Deposition Data					
Diameter	Current	Voltage	Deposition Efficiency (%)	Burn-off Time /Electrode	Deposition Rate @ 90% I max
2.5 x 300.0 mm (0.098 x 11.8 in.)	50-80 A	22 V	62 %	50.2 sec	0.72 kg/h (1.6 lbs/h)
3.2 x 350.0 mm (1/8 x 13.8 in.)	70-100 A	23 V	65 %	58.67 sec	1.2 kg/h (2.6 lbs/h)
4.0 x 350.0 mm (5/32 x 13.8 in.)	100-150 A		73 %		2.0 kg/h (4.4 lbs/h)