

Shield-Bright 2594

Shield-Bright 2594 is designed for the welding of 25Cr-9Ni-3Mo-0.2N super duplex stainless steel (UNS S32750, S32760). It has excellent slag removal and bead shape with all position welding for use with Ar/CO₂ gas mixtures (M21).

Classifications	SFA/AWS A5.22 : E2594T1-4 EN ISO 17633-A : T 25 9 4 N L P M21 2
Approvals	ABS E2594T1-4 CE EN 13479
Industry	Chemical Industry Offshore Oil Petrochemical Pipeline Process Pulp and Paper

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

Welding Current	DC+
Alloy Type	Ni, Cr, Mo, N
Shielding Gas	M21 (EN ISO 14175)

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
As Welded	700 MPa (102 ksi)	860 MPa (125 ksi)	27 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
As Welded	-29 °C (-20 °F)	48 J (36 ft-lb)
As Welded	-46 °C (-51 °F)	44 J (33 ft-lb)

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Cr	Mo	Cu	N
0.03	0.95	0.62	0.01	0.02	9.68	25.34	3.59	0.14	0.23

Typical Weld Metal Analysis %

W
0.02

Deposition Data

Diameter	Current	Voltage	Wire Feed Speed	Deposition Rate
1.2 mm (0.045 in.)	150-220 A	25-30 V	8.3-11.4 m/min (327-449 in./min)	2.4-4.6 kg/h (5.3-10. lb/h)