

EXCALIBUR® 2594-16

Stainless • AWS E2594-16

KEY FEATURES

- A super-duplex grade electrode that provides matching chemistry and mechanical property characteristics to wrought super-duplex alloys such as 2507 and Zeron 100, as well as to super-duplex casting alloys (ATSM A890)
- Welding heat input ranges between 1 to 2 ks/in are recommend
- High tensile and yield strength results, as well as superior resistance to Stress Cracking (SCC) and pitting corrosion
- Great corrosion resistance in a range of environments

CONFORMANCES

AWS A5.4/A5.4M: 2012	E2594-16
ASME SFA A5.4:	E2594-16

TYPICAL APPLICATIONS

- Process Pipework
- Pumps and Valves
- Pressure Vessels
- Welding 2507 and Zeron 100 Duplex Stainless Steels

WELDING POSITIONS

All, except vertical down

DIAMETERS / PACKAGING

Diameter		Length		8 lb (3.6 kg) Easy Open Can	10 lb (4.5 kg) Easy Open Can
in	(mm)	in	(mm)	24 lb (10.9 kg) Master Carton	30 lb (13.6 kg) Master Carton
3/32	(2.4)	12	(305)	ED034989	
1/8	(3.2)	14	(355)		ED034990
5/32	(4.0)	14	(355)		ED034991
3/16	(4.8)	14	(355)		ED034992

DEPOSIT COMPOSITION(1) - As Required per AWS A5.4/A5.4M: 2012

	%C	%Cr	%Ni	%Mo	%Mn	%Si
Requirements						
AWS E2594-16	0.04 max	24.0 - 27.0	8.0 - 10.5	3.5 - 4.5	0.5 - 2.0	1.00 max
Typical Results(2)	0.02	25.4	9.2	4.2	0.8	0.58
	%P	%S	%N	%Cu	FN	
Requirements						
AWS E2594-16	0.04 max	0.03 max	0.20 - 0.30	0.75 max	Not Required	
Typical Results(2)	0.01	0.01	0.22	0.07	30 - 60	

TYPICAL OPERATING PROCEDURES

Polarity(5)	Current (Amps)			
	3/32 in (2.4 mm)	1/8 in (3.2 mm)	5/32 in (4.0 mm)	3/16 in (4.8 mm)
AWS E2594-16				
DC+/AC	40 - 80	75-110	95 - 150	130 - 200