AK E2594-16

AWS A5.4 E2594-16

EN ISO 3581- A:E

Description: E2594-16 is a super duplex stainless steel coated electrode used for welding matching or similaralloys such as ASTM A890, UNS S31260(DP-3), S32750 (2507), S32760 J93380 (Zeron 100), S32550 (Ferralium 255). Also found for welding UNS S32550, J93370, and J03372 when used without sulfurous and sulfuric service conditions. It may also be used to weld carbon and low alloy steels to duplex as well as root runs on UNS S32205 & J92250.Interpass temperature 300°F max and heat input of 10-30kJ/in.; Heat Input = VoltagexAmperage x6⁄TravelSpeed (inch/Minute) x 100.Weld metal should have very good resistance to stress corrosion cracking and pitting with anaustenite & 45-55 % ferrite matrix. Over alloyed with 2-3% Nickel whichyields a weld bead with superior austenite/ferrite duplex properties.

Typical Chemical Compostion(%):

	C	Si	Mn	S	P	Ni	Mo	Cr	Cu
Requirement	0.04	1.00	0.5-2.5	0.03	0.04	8.0-10.5	3.5-4.5	24.0-27.0	0.75
Actual Result	0.030	0.54	1.01	0.010	0.024	9.12	4.04	25.88	0.06

Typical Mechanical Properties:

	Tensile strength (MPa)	Yield Stress (MPa)	Elongation (%)	Impact Values (J)
Requirement	≥760		≥ 15	
Actual Result	820		18	