

ROYALFIL GS - 2594 (E2594T1-1)

AWS A / SFA 5.22 E 2594T1-1 EN ISO 17633 A T2594CuNLRC1

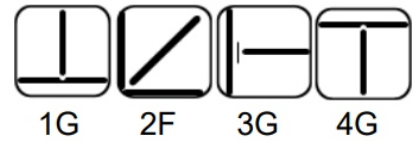
Applications

Royalfil GS- 2594 is designed for the welding of superduplex stainless steels UNS S 32750 & S 32760 (wrought) & UNS J93380 & J93404 (cast). It can also be used for welding of UNS S32550, J93370 & J93372 when not subjected to sulphurous or sulphuric acids in service. It can also be used for welding of low alloy steels to duplex steels such as E2205 & E2209 grades. In offshore applications, it gives high resistance to 'pitting & stress corrosion cracking' in sea water. Widely used for piping in oil & gas industry, offshore platforms, pressure vessels, valves, pumps, mining / chemical / pharmaceutical industries.

Characteristics on Usage

Royalfil GS- 2594 is a Super Duplex stainless steel fluxcored welding wire for welding with CO₂ shielding gas. Two phase microstructure of the weld deposit consists of Austenite & Ferrite (50/50) which has improved strength over ferritic & austenitic type stainless steel grades. The main difference is that 'superduplex stainless steel' has a higher chromium & molybdenum content, which gives greater 'corrosion resistance' in comparison to 'Duplex Stainless Steel'. Welding of Super Duplex Stainless Steel should be made with 'low heat input'. Weld metal is of radiographic quality.

Welding Positions



Recommended Stick Out

15-20mm

OutShielding Gas

Carbon Dioxide (CO₂) Shielding
Gas Flow : 15-20 Lit / Min

Packing

15 kgs. Vacuum packed plastic spool

FLUX CORED WIRE : STAINLESS STEEL

Chemical Composition Of Weld Metal

C%	Mn%	Si%	S%	P%	Cr%
0.04 Max	0.5-2.50	1.0 Max	0.03 Max	0.04 Max	24- 27
NI%	Mo%	Cu%	N%		
8-10.5	2.5-4.5	1.5 Max.	0.20-0.30		

Mechanical Properties Of Weld Metal

U.T.S. (N/mm ²)	ELONGATION. (L = 4d) %
760-850 Min	15-20 Min

Welding Parameters (DC + VE)

Diameter (mm)	Flat & Horizontal (A)	Flat & Horizontal (V)	Vertical - Up (V)	Vertical - Up (V)	Overhead (V)	Overhead (V)
1.20	160-210	26-30	120-160	22-26	150-180	26-30
1.60	190-250	26-30	160-200	22-27	180-210	26-30