

ROYALFIL GS - 2553 (E2553T0-1)

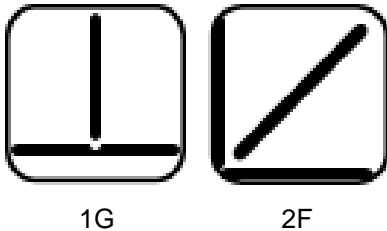
AWS A / SFA 5.22 E2553T0-1

Applications

Royalfil GS- 2553 is used for welding of duplex stainless steels with 25% Chromium. Also used for joining of Duplex steels to mild steels, cladding of duplex stainless steel weld metal on carbon steel / low alloy steel. Used for piping in gas & oil industry, off-shore platforms, chemical and petrochemical plants, pulp/paper and textile industries, welding of duplex stainless steels 1.4417, 1.4460, 1.4462, 1.4515, 1.4517.

Characteristics on Usage

Royalfil GS- 2553 is a Duplex stainless steel fluxcored welding wire for welding with Co₂ shielding gas. The nominal combination of the weld metal is 25.5% Cr, 9.5% Ni, 3.4% Moly, 2% Cu and 0.18% N. The microstructure of the weld deposit consists of a mixture of austenite and ferrite. Because of two phase microstructure, this alloy is one of the family of duplex stainless steel alloys. Addition of Copper improves corrosion resistance in sulphuric acid media and potentially increases strength and wear resistance. Welding of duplex stainless steel should be made with low heat input. Weld metal is of radiographic quality.

Welding Positions**Chemical Composition Of Weld Metal**

Element	C%	Mn%	Si%	S%	P%	Cr %	Ni %
Typical Values	0.030	1.00	0.50	0.006	0.030	25.5	9.5
Spec. Req'd.	0.04 Max	0.5-1.50	0.75 Max	0.03 Max	0.04 Max	24-27	8.5-1

Mechanical Properties Of Weld Metal

FERRITE NO. = 30-40 FN

Property	U.T.S. (N/mm ²)	ELONGATION (L = 4d) %
Typical Values	850	20
Spec. Req'd.	760 Min	15 Min

Welding Parameters (DC + VE)

Diameter (mm)	Flat & Horizontal (A)	Flat & Horizontal (V)
1.20	160-210	26-30
1.60	190-250	26-30

Packing

12.5 Kgs. vacuum packed plastic spool