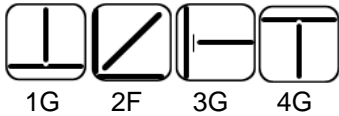


Applications

Royalfil GS-81R is used for welding of similar composition of Cr-Mo steels and other resistant steels. It is also used for welding of high temperature & pipe steels for oil industry.

Characteristics on Usage

Royalfil GS-81R is an all position low alloy rutile base flux cored wire depositing approximately 1.20% Cr & 0.50%Mo weld metal with CO₂ shielding. The slag coverage is complete and designed for easy removal. Weld metal is consistently free of inclusions and porosity for radiography soundness.

Welding Positions

1G 2F 3G 4G

Recommended Stick Out

15 - 20mm

Shielding Gas

Carbon Dioxide (CO₂) shielding
Gas Flow :20-25 Lit / Min

Chemical Composition Of Weld Metal

Element	C%	Mn%	Si%	S%	P%	Cr %	Mo %
Typical Values	0.06	0.70	0.60	0.010	0.015	1.20	0.50
Spec. Reqd.	0.05-0.12	1.25 Max	0.80 Max	0.03 Max	0.03 Max	1.00-1.50	0.40-0.65

Mechanical Properties Of Weld Metal

(After PWHT at 690 ± 15°C for 1 Hr)

Property	U.T.S. (N/mm ²)	Y.S. (N/mm ²)	ELONGATION (L = 4d) %
Typical Values	600	545	24.50
Spec. Reqd.	550-690	470 Min	19 Min

Welding Parameters (DC + VE)

Diameter (mm)	Flat & Horizontal		Vertical - Up		Overhead	
	(A)	(V)	(A)	(V)	(A)	(V)
1.20	180-250	26-30	120-210	22-26	150-200	26-30
1.60	210-280	26-30	160-250	22-27	190-240	26-30

Approvals

IBR

Packing

15 kgs. vacuum packed plastic spool.