

**ROYALFIL GS 38 R (E81T1-K2 C)**

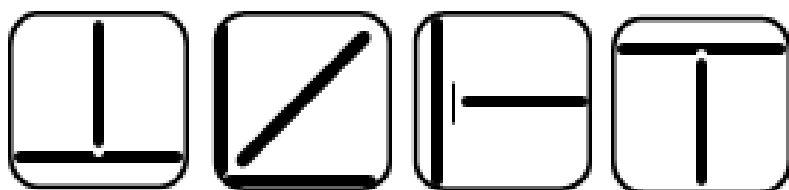
AWS A / SFA 5.29 E81T1-K2C

**Applications**

Royalfil-GS-38R is all position welding wire suitable for single & multiple pass welding of high tensile steel used in machinery, structures bridges, low temperature service steel in the construction of LPG,LNG storage tanks etc. Steels welded are Hy80, Hy100. ASTM A 710, ASTM A 514 and similar high strength steels.

**Characteristics on Usage**

Royalfil GS-38R is a all position low alloy rutile base flux cored wire depositing approximately 1.0-2.0% Ni & 0.20%Mo weld metal with CO2 shielding. The slag coverage is complete and easy to remove. Weld metal is consistently free of inclusions and porosity with very good mechanical strength & is of radiographic quality.

**Welding Positions**

1G

2F

3G

4G

**Chemical Composition Of Weld Metal**

Element	C%	Mn%	Si%	S%	P%	Cr %	Ni
Typical Values	0.050	1.20	0.40	0.010	0.018	0.10	1.5
Spec. Req'd.	0.15 Max	0.50 -1.75	0.80 Max	0.03 Max	0.03 Max	0.15 Max	1.00 -

**Mechanical Properties Of Weld Metal**

Property	U.T.S.	Y.S.	ELONGATION	IMPACT ( CVN )
	(N/mm <sup>2</sup> )	(N/mm <sup>2</sup> )	( L = 4d ) %	AT - 30° C ( J )
Typical Values	620	530	24	60
Spec Req'd.	550 - 690	470 Min	19 Min	27 Min

**Welding Parameters (DC + VE)**

Diameter	Flat & Horizontal	Flat & Horizontal	Vertical - Up	Vertical - Up	Overhead	Overhead
(mm)	(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

**Packing**

15 kgs. vacuum packed plastic spool.