

ROYALFIL GS 81 RB (E81T5-B2 C)

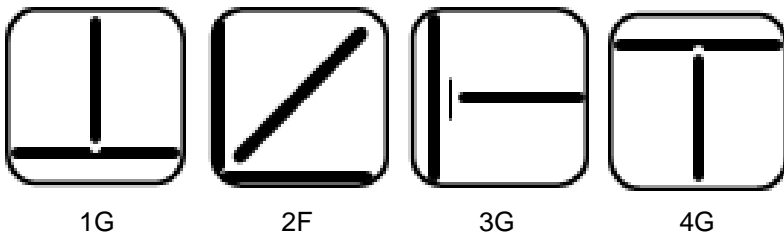
AWS A / SFA 5.29 E81 T5 - B2 C

Applications

Since all Cr-Mo electrodes produce weld metal which will harden in still air, both preheat & postweld heat treatment are required for most applications. Specially design for Cr-MO Steels with high temp & pressure service condition in steam pipes of boilers. It is used for welding of Iron / 0.5 Mo, 0.5 Cr/0.5 Mo & similar creep resistance steels. Eg. ASTM A 335 – P11' pipe, ASTM A 387 Gr. II plate.

Characteristics on Usage

It is low hydrogen low alloy all position type flux cored wire with highly basic slag having stable & smooth arc, good slag detachability. Weld metal is of radiographic quality. It is used for all position welding with CO₂ shielding.

Welding Positions**Chemical Composition Of Weld Metal**

Element	C%	Mn%	Si%	S%	P%	Cr %	Mo
Typical Values	0.060	0.70	0.40	0.010	0.015	1.25	0.5
Spec. Req'd.	0.05-0.12	1.25 Max	0.80 Max	0.030 Max	0.030 Max	1.00-1.50	0.40 -

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.Req'd.	550-690	470 Min	19 Min

Welding Parameters (DC + VE)

Diameter (mm)	Flat & Horizontal (A)	Flat & Horizontal (V)	Vertical - Up (A)	Vertical - Up (V)	Overhead (A)	Overhead (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.