ROYALFIL GS 81 RB (E81T5-B2 C)

AWS A / SFA 5.29 E81 T5 - B2 C

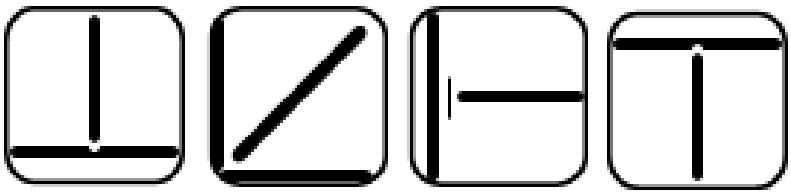
Applications

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



1G 2F 3G 4G

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. Reqd.	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 ± 15ºC 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 (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.