

ROYALFIL GS 46R (E111T1-GC)

AWS A / SFA 5.29 E111T1 - GC

Applications

RoyalFil GS 46 R is primarily intended for as welded applications for welding of low alloy high strength steels. Weld metal provides excellent Notch toughness at low temperature.

Characteristics on Usage

RoyalFil GS 46 R is rutile based low hydrogen type all position flux cored wire designed for single and multiple pass welding with Co₂ shielding gas. Weld metal is of radiographic quality.

Welding Positions

1G

2F

3G

4G

Chemical Composition Of Weld Metal

Element	C%	Mn%	Si%	S%	P%	Ni %	Mo
Typical Values	0.060	1.50	0.40	0.007	0.015	2.50	0.5
Spec. Req'd.	0.05-0.12	1.20-2.00	0.80 Max	0.030 Max	0.030 Max	2.00-2.75	0.35-

Mechanical Properties Of Weld Metal

Property	U.T.S. (N/mm ²)	Y.S. (N/mm ²)	ELONGATION (L = 4d) %	IMPACT (CVN) AT -40 °C (J)
Typical Values	830	780	20	60
Spec. Req'd.	760-900	680 Min	15 Min	27 Min

Welding Parameters (DC + VE)

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

Packing

15 Kgs. Vacuum packed plastic spool.