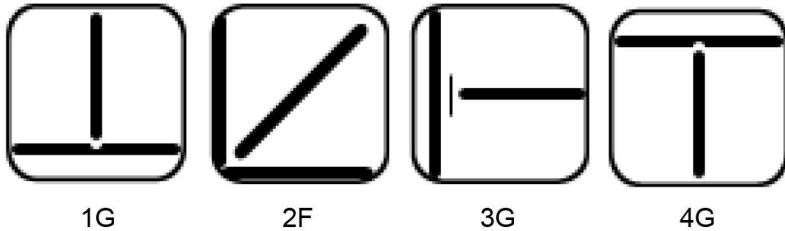


**Applications**

Royalfil GS-12R is designed for all position single and multipass welding of low and medium carbon steels. Suitable for joining steels conforming to ASTM SA-36 /SA-36M and A,B,C,D grades of SA-283 / SA-283M & SA-414 / SA-414M.(P.No.1) e.g. Fabrication in chemical plant machinery structures & Steel frames in ship building, heavy bridges & towers.

**Characteristics on Usage**

Royalfil GS-12R is an all position Rutile flux cored wire designed for optimum performance when using CO<sub>2</sub> shielding. The smooth metal transfer facilitates easy deposition of vertical-up stringer beads. The slag coverage is complete and designed for easy removal. Weld metal is consistently free of inclusions and porosity for X-ray soundness. This wire is formulated to produce fewer fumes, minimal spatter.

**Welding Positions**

1G

2F

3G

4G

**Chemical Composition Of Weld Metal**

Element	C%	Mn%	Si%	S%	P%
Typical Values	0.05	1.25	0.38	0.010	0.018
Spec. Reqd.	0.12 Max	1.75 Max	0.90 Max	0.03 Max	0.03 Max

**Mechanical Properties Of Weld Metal**

Property	U.T.S. (N/mm <sup>2</sup> )	Y.S. (N/mm <sup>2</sup> )	ELONGATION ( L = 4d ) %	CVN IMPACT AT - 20°C ( J )
Typical Values	550	470	26	60
Spec. Reqd.	490-670	390 Min	22 Min	27 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

**Approvals**

LRA / ABS/ DNV/ GL/IRS /IBR/RDSO

**Packing**

15 kgs. vacuum packed plastic spool.



ISO: 9001 - 2008 Certified Company  
[www.royalarc-electrodes.com](http://www.royalarc-electrodes.com)



IS-15769

CM/L-7100010874