

**ROYALFIL GS 106 (E312T1-1)**

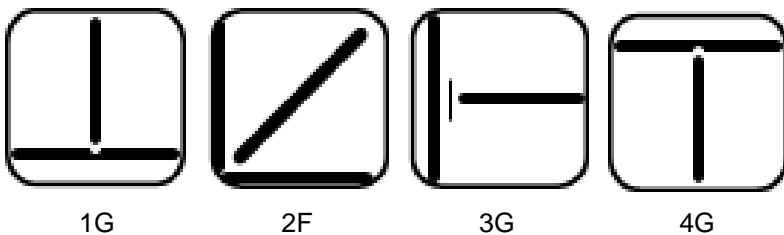
AWS A / SFA 5.22 E312T1-1

**Applications**

Royalfil-GS-106 is suitable for the welding of difficult to weld steel like spring steels. Cast steels, tool steels, high speed steels, case hardening steels, manganese steels, steels of unknown chemical composition, dissimilar joints between stainless steel & high carbon steel, to weld cast alloys of similar composition. Also used for laying buffer before hardfacing .

**Characteristics on Usage**

Royalfil GS-106 a stainless steel flux core welding wire for all position welding with CO<sub>2</sub> gas shielding. It gives the 30% Cr and 9% Ni weld deposit which has excellent oxidation resistance. The weld metal has a two phase structure with substantial amount of ferrite in austenitic matrix. Deposited weld metal is highly resistance to cracks & fissures. Weld metal is of radiographic quality.

**Welding Positions****Chemical Composition Of Weld Metal**

Element	C%	Mn%	Si%	S%	P%	Cr %	Ni %
Typical Values	0.030	1.60	0.65	0.008	0.030	28.5	9.0
Spec. Reqd.	0.15 Max	0.5-2.5	1.0 Max	0.030 Max	0.040 Max	28.0-32.0	8.0-11.0

**Mechanical Properties Of Weld Metal**

Property	U.T.S. (N/mm <sup>2</sup> )	ELONGATION ( L = 4d ) %
Typical Values	750	25
Spec. Reqd.	660 Min	22 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	160-210	26-30	120-160	22-26	150-180	26-30
1.60	190-250	26-30	160-200	22-27	180-210	26-30

**Packing**

12.5 kgs. vacuum packed plastic spool.