

**ROYALFIL GS - 413 (E410T0-1)**

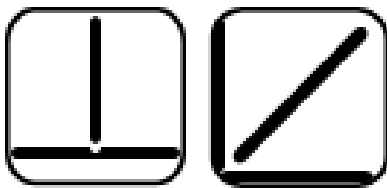
AWS A /SFA 5.22 E 410T0-1

**Applications**

Welding of martensite stainless alloys of 13 % Cr type. It is used for surfacing of seraling faces of valves for gas, water & steam piping. Hard surfacing of continuous casting roll of steel plants, valves etc.

**Characteristics on Usage**

Royal Fil GS - 413 is a martensitic type Gas Shielded flux cored welding wire with 100% Co2 which are commonly used for hard surfacing of steel mill rolls, valve component of similar alloys. The weld metal is resist to corrosion, erosion or abrasion & resist to high temperature microstructure stability, thermal fatigue & cracking, eliminate ferrite in the microstructure.

**Welding Positions**

1G

2F

**Chemical Composition Of Weld Metal**

Element	C%	Mn%	Si%	S%	P%	Cr %	Ni
Typical Values	0.045	0.55	0.35	0.009	0.020	11.75	0.5
Spec. Req'd.	0.12 Max	1.20 Max	1.00 Max	0.030 Max	0.04 Max	11.00-13.50	0.60

**Mechanical Properties Of Weld Metal**

(After PWHT at 732-760°C for 1 Hr), Hardness on 2nd layer is 28-32 HRC.

Property	U.T.S. (N/mm <sup>2</sup> )	ELONGATION ( L = 4d ) %
Typical Values	575	24.5
Spec. Req'd.	520 Min	20 Min

**Welding Parameters (DC + VE)**

Diameter (mm)	Flat & Horizontal (A)	Flat & Horizontal (V)
1.20	160-210	26-30
1.60	190-250	26-30

**Packing**

12.5 kgs. vacuum packed plastic spool.