

Applications

Intended for single & multiple pass applications. Used for welding of medium & high tensile low alloy steel with (80 %Ar - 20% CO₂). It can be used on 1.25 Cr. & 0.5 Mo steels. Recommended for welding of steam boiler plates and high temperature steels.

Characteristics on Usage

ROYALFIL GS-80M is a low alloy steel metal cored welding wire. It gives low spatter, higher deposition rate, and good penetration & generates less fumes. Faster travel speeds are achievable than with solid wire, thus increasing productivity.

Welding Positions

1G 2F

Recommended Stick Out

15-20 mm

Shielding Gas

80 % Ar + 20 % CO₂ shielding
Gas Flow : 20-25 Lit/Min

Chemical Composition Of Weld Metal

Element	C%	Mn%	Si%	S%	P%	Cr %	Mo %
Typical Values	0.050	1.20	0.50	0.007	0.017	1.25	0.5
Spec. Reqd.	0.10 Max	1.00-1.50	0.3-0.6	0.030 Max	0.030 Max	1.0-1.50	0.4-0.65

Mechanical Properties Of Weld Metal

(After PWHT at 620°C for 1 Hr)

Property	U.T.S. (N/mm ²)	Y.S. (N/mm ²)	ELONGATION (L = 4d) %	IMPACT (CVN) AT 0° C
Typical Values	630	540	24	90
Specific reqd.	550 Min	470 Min	19 Min	47 Min

Welding Parameters (DC + VE)

Diameter (mm)	Flat & Horizontal	
	(A)	(V)
1.20	160-210	28-34
1.60	180-250	28-34

Packing

15 Kgs. vacuum packed plastic spool.