

ROYALFIL GS 19 R (E91T1-Ni2 C)

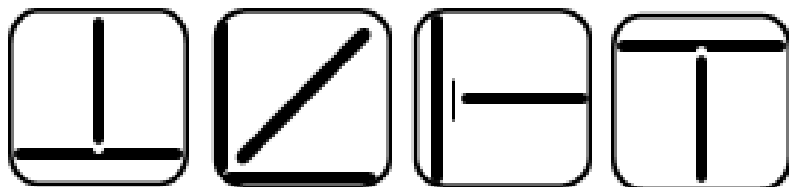
AWS A / SFA 5.29 E91T1-Ni2 C

Applications

Royalfil-GS-19 R fcw wire has been designed to produce weld metal with increase strength (without being air hardenable) & with increase notch toughness at low temperature. This Nickel steel weld metal can be used without PWHT. Often used in structural applications where excellent toughness is required. For e.g. Construction machineries, Structural bridges & storage tanks. Ideal for welding quenched & tempered steels of HY 80 type.

Characteristics on Usage

Royalfil GS-19 R is Rutile base gas shielded flux cored wire welding for all position welding with Co₂ shielding gas depositing radiographic quality metal. Arc is smooth & stable with low spatter and good bead appearance. Slag coverage is complete and easy removal.

Welding Positions

1G

2F

3G

4G

Chemical Composition Of Weld Metal

Element	C%	Mn%	Si%	S%	P%	Ni %
Typical Values	0.060	1.30	0.50	0.007	0.017	2.50
Spec. Req'd.	0.12 Max	1.50 Max	0.80 Max	0.030 Max	0.030 Max	1.75 -2.75

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	680	590	21	70
Spec. Req'd.	620-760	540 Min	17 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

Packing

15 kgs. vacuum packed plastic spool.