

**ROYAL CAST Ni-1 (E Ni-1)**

AWS: SFA 5.11, E Ni -1

**Applications**

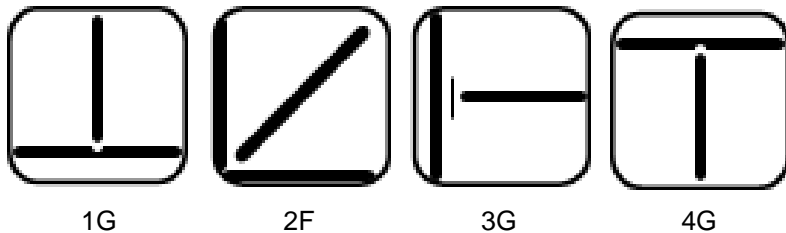
It is used for joining nickel to steel and surfacing steel with nickel. It is also used for joining and welding of Nickel base metal like ASTM B 160, B161, B 162, B 163 etc.

**Characteristics on Usage**

It is medium coated basic type all position electrode deposits 95% Ni, 2.5% Ti weld metal. It is used for welding wrought and cast forms of commercially pure nickel.

**Notes On Usage**

- 1) Chip off base metal completely at the repairing part .
- 2) There is possibility that cracks spreads or makes holes at both ends of repairing part .
- 3) Keep the weld metal length less than 50 mm (2 inch ) to disperse welding heat- adopt back stepping stone or symmetry method by turns.
- 4) The preheat temprature vary in accordance with te size ,king and shape of the base metal 150°C is appropriate in general .

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

C%	Mn%	Si%	S%	P%	Ni %	Cu %
0.10 Max	0.75 Max	1.25 Max	0.020 Max	0.030 Max	92.0 Min.	0.25 Max

**Mechanical Properties Of Weld Metal**

U.T.S. (N/mm <sup>2</sup> )	ELONGATION ( L = 4d ) %
410 Min	20 % Min

**Packing and Welding Current**

SIZE ( mm )	KG PER PACKET	KG PER CARTON	Current (Amps)	In Amps
2.50 x 350	2	10	DC (+)	60 - 80
3.15 x 350	2	10		80 - 120
4.00 x 350	2	10		120 - 140
5.00 x 350	2	10		140 - 180

**Packing**

Vaccum packing