

# GEMET 822N

## IDENTIFICATION

Gemet 822N, ENiCrFe-2

## CLASSIFICATION

AWS/SFA 5.11 ENiCrFe2, DIN 1736 EL-NiCr16FeMn

## DESCRIPTION

A versatile non-synthetic electrode for welding of Inconel 600 and similar composition alloys. Medium heavy coated, basic type all- position electrode manufactured by using inconel core wire intended for welding Inconel 600, Incoloy 800, Incoloy DS and similar composition alloys. The electrode deposits fully austenitic weld metal immune to hot cracking and not prone to embrittlement. The weld metal retains toughness after more than 10,000 hrs at temperature above 900°C. One of the most widely used multipurpose nickel -base electrode.

## WELD METAL ANALYSIS (RANGE) %

C	Mn	Si	S	P	Fe	Cr	Ni	Cu	Nb	Mo
0.1 Max	1.0 - 3.5	0.75 max	0.015 max	0.03 max	12 max	13.0 - 17.0	62 min	0.5 max	0.5 - 3.0	0.5 - 2.5

## MECHANICAL PROPERTIES (RANGE)

TS (N/mm <sup>2</sup> )	YS (N/mm <sup>2</sup> )	EL (%) (L=4D)	CVN Impact Value	
			Temp	Joules
650 - 770	380 - 490	30 - 45	-196°C	50 - 120

## TYPICAL APPLICATIONS

- For welding Inconel 600, Incoloy 800, Incoloy DS.
- High nickel alloys to themselves and to mild, low alloy, stainless steels.
- Inconel 825 to stainless steel, low alloy steel for use in furnace equipment and petrochemical plants up to 1000°C.

**PREHEAT** : Not generally required but useful for higher carbon hardenable steel.

**ASME IX QUALIFICATION** : QW-432, FNo -43

**MICROSTRUCTURE** : High nickel austenite with some carbide.

## PACKING PARAMETERS

Size (mm)	Length (mm)	Current Condition Amps DC (+)	Packing / Packet (kg)	Packing / Box (kg)
2.5	350	50 - 70	2	2 x 5 = 10
3.15 / 3.20	350	70 - 100	2	2 x 5 = 10
4	350	90 - 130	2	2 x 5 = 10

