GWELD
SEAL OF TRUST

GEMET 825N

IDENTIFICATION
Gemet 825N, ENiCrMo-3

CLASSIFICATION
AWS SFA 5.11 ENiCrMo3
DIN 1736 EL-NiCr20Mo9Nb (2.4621)

DESCRIPTION
Medium heavy coated, basic type, nickel base electrode intended for welding Inconel 625 and similar composition alloys which are primarily used for their excellent corrosion and oxidation resistance.
They exhibit an exceptionally high resistance to pitting corrosion and chloride induced stress corrosion cracking. The electrode is manufactured using nickel-alloyed core wire and hence it is non-synthetic The deposited welds are of x-ray quality.

WELD METAL ANALYSIS (RANGE) %

C	Mn	Si	S	P	Cb + Ta	Cu	Cr	Ni	Mo	Fe
0.09 Max	1 max	0.20 - 0.75	0.015 max	0.02 max	3.15 - 4.15	0.5 max	20.0 - 23.0	55 min	8.0 - 10.0	1.5 max

MECHANICAL PROPERTIES (RANGE)

UTS (N/mm2)	EL (%) (L=4D)	Bend Test Results	CVN Impact Value	
			Temp	Joules
770 - 890	30 – 50	Satisfactory	-196°C	40 - 100

TYPICAL APPLICATIONS

- Suitable for wide range of dissimilar joint combination between nickel-base alloys, mild and low alloy steels and stainless steels especially where high temperature service conditions prevail.
- Suitable for welding 5% and 9% nickel steels.
- Alloy 625, ASTM UNS NO6625, Inconel 601, Incoloy 800H, 825 and equivalents. Furnace equipments, petrochemical and power generation plants, overlays on pumps, valves and shafts in off –shore and marine environments.

FERRITE CONTENT **:** FN-O (WRC-92)

INTERPASS TEMPERATURE : 100°C max.

HEAT IN-PUT **:** 1.5 kJ/mm max.

SCALING TEMPERATURE **:** 1100°C (air)

CORROSION RESISTANCE

Very good resistance to general and inter-granular corrosion. Maximum resistance (practically

immune) to pitting corrosion, crevice corrosion and stress corrosion cracking in chloride bearing environments.

PACKING PARAMETERS

Size (mm)	Length (mm)	Current Condition DC (+) Amps	Packing / Packet (kg)	Packing / Box (kg)
2.5	350	60 - 80	2	2 x 5 = 10
3.15 / 3.20	350	70 - 120	2	2 x 5 = 10
4	350	100 - 155	2	2 x 5 = 10
5	350	130 - 250	2	2 x 5 = 10