GWELD
SEAL OF TRUST

GEMET 817

IDENTIFICATION
Gemet 817, ENiCrCoMo-1

CLASSIFICATION
AWS/SFA 5.11: ENiCrCoMo-1, EN/ISO 14172: ENi6617
NiCr22Co12Mo, DIN: 1736 ENiCr21 Co12Mo, UNS: W86117

DESCRIPTION
Nickel base basic coated electrode, with an alloyed core wire depositing weld metal having about 22 Cr-10 Co-9 Mo-55 Ni. The weld metal has excellent resistance to corrosion and high temp oxidation in the range 800° C to 1150° C. The electrode can be used in positional welding and meets radiographic quality requirements.

WELD METAL ANALYSIS (RANGE) %

C	Mn	P	S	Si	Cu	Fe	Ni	Cr	Co	Mo	Nb + Ta
0.05 - 0.15	0.5 - 2.5	0.03 max	0.015 max	1 max	0.5 max	5 max	Remainder	21.0 - 26.0	9.0 - 15.0	8.0 - 10.0	1 max

MECHANICAL PROPERTIES (RANGE)

UTS (MPa)	EL (%) (L=4D)	CVN Impact Value	
620 min	25 min	**Temp**	**Joules**
		+ 20°C	90 min

TYPICAL APPLICATIONS

- For welding Inconel alloys 600, 601, Incoloy 800 HT and cast alloys such as HK40, HP and HP4 modified.
- Dissimilar metals such as Inconel to stainless steel, etc.
- Construction of gas turbines, combustion chambers, ovens, thermal equipment for heat treatment, petrochemical installation.

BASE MATERIALS

UNS	Alloy	DIN	Material N°
N08810	800H	X5NiCrAlTi3120	1.4958
	DS	X8NiCrSi3818	1.4862
N06601	601	NiCr23Fe	2.4851
N06617	617	NiCr23Co12Mo	2.4663

SPECIAL INSTRUCTIONS
- Rebaking: 1 hour at 250° - 300°C.
- Joints to weld must be clean, exempt from grease, cracks.
- Guide electrodes with a slight declination, weld with a short arc and prevent a high heat input by applying the stringer bead technique (weaving max. 2 times core wire diameter)

- Nickel base alloys are welded without preheating and a interpass temperature <150°C. For repair welding of steels with high carbon content a preheating between 200 - 500°C has to be applied. A post weld heat treatment can be performed without influence on the weld deposit

PACKING PARAMETERS

Size (mm)	Length (mm)	Current Condition Amps DC (+)	Packing / Packet (Kg)	Packing / Box (kg)
2.5	300	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