

# ENI 422

Coated Electrode for Nickel Alloys -

## Standards

AWS/ASME SFA - 5.11	ENiCrFe-3
EN ISO 14172	E Ni 6182
TS EN ISO 14172	E Ni 6182
DIN M. No.	2.4620

## Materials

DIN	Material
X10 NiCrAlTi 32 20	1.4876
X5 NiCrAlTi 31 20	1.4958
NiCr15Fe	2.4816

## Properties and Applications

Basic coated electrode with Ni-Cr-Fe type nickel base deposit. Used for repairing and joining of nickel alloys, 5 - 9% Nickel steels, cryogenic stainless steels down to -196°C, Incoloy 800 and other high temperature steels. Provides a weld metal which has a operating temperatures from -196°C to 800°C. Used for joining dissimilar materials as stainless steels/low alloyed steels, stainless steels/Nickel alloys, buffering of difficult to weld steels. Weld metal deposit is insensitive to cracks, has very good resistance to acids, salts and alkaline solutions, molten salt (e.g. cyanide) in oxidizing and carburization atmospheres (avoid a sulphurous atmosphere). Generally used for welding on oven parts, burners, heat treatment equipment, cement works, moulds, transport and storage tanks of liquid gas. Has a wide range of application in chemical industry, petrochemical industry, glassworks, civil engineering, repairing and maintenance workshops.



## Typical Chemical Values of Weld Metal

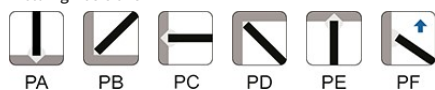
Type of Analysis	C	Si	Mn	Cr	Ni	Mo	Nb	Fe
Weld Deposit	0.03	0,50	6.50	16.00	68.00	1.50	2.00	5.00

## Typical Mechanical Values of Weld Metal

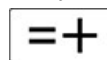
Test Condition	Yield Strength (N/mm <sup>2</sup> )	Tensile Strength (N/mm <sup>2</sup> )	Elongation A5 (%)	Charpy V-Notch Properties (J)	
As welded	400	660	38	20°C → 120	-196°C → 100

## Application Information

### Welding Positions



### Polarity:



### Welding Parameters & Efficiency

Diameter x Length (mm)	Current (A)	Weld Deposit(Kg)/1Kg Consumed Electrode	Number of Electrodes/1Kg Weld Deposit	Weld Metal Deposition Rate (Kg/h)	Efficiency(%)
2.50x300	50-70	0,58	90	0.72	116
3.25x350	70-95	0,63	44	1,16	117
5.00x450	120-160	0,67	14	2,87	118
4.00x350	90-120	0,65	28	1,56	118

## Packaging Information

Product Code	Diameter X Length (mm)	Pieces per Box (-)	Weight Of The Box (kg)	Boxes Per Package	Weight Of The Package	Packaging Type
16005GJEM2	2.50x300	86	1.8	10	18.2	VAC Box
16005NJEM2	3.25x350	54	2.0	10	22.0	VAC Box
16005NREM2	3.25x350	139	5.0	3	15.4	Cardboard Box

16005QREM2	4.00x350	87	5.0	3	15.4	Cardboard Box
16005VSEM2	5.00x450	58	6.5	3	19.9	Cardboard Box

#### Storage & Re-Drying Information

It can be dried maximum 5 times.  
It has to be dried at 300°C for 1 hour.