



# Selectarc Ni617

High temperature  
Nickel base Electrode

## Classification

AWS A5.11 : ~ENiCrCoMo-1  
UNS : W86117

ISO 14172 : E-Ni 6617 (NiCr22Co12Mo)

## Description & Applications

Basic coated nickel base electrode, with an alloyed core wire, for joining and repairing of high temperature alloys used at operation temperatures up to 1100°C. The electrode distinguishes itself by a soft arc, easy slag removal and regular weld beads.

**Main applications:** 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

## Typical Weld Metal Composition ( % )

C	Si	Mn	Cr	Co	Mo	Fe	Al	Ti	Ni
0.06	0.8	0.3	21.0	11.0	9.0	1.0	0.7	0.3	Rem.

## All Weld Metal Mechanical Properties

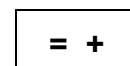
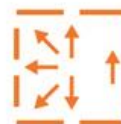
R <sub>p0.2</sub> ( MPa )	R <sub>m</sub> ( MPa )	A <sub>5</sub> ( % )	KV ( J )
460	730	40	+20°C 100

## Welding Current & Instructions

Electrode	ØxL ( mm )	2,5x300	3,2x350	4,0x350
Current	( A )	45-60	75-95	90-120

Redrying 1 h 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 an 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.

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