Selectarc Ni625

Nickel base Electrode
highly corrosion resistant

Classification

AWS A5.11 : ENiCrMo-3
UNS : W86112

ISO 14172 : E-Ni 6625 (NiCr22Mo9Nb)

Description & Applications

Basic coated electrode with an alloyed core wire for welding of Nickel-Chromium-Molybdenum alloys to themselves and to lower alloyed steels as well as for welding of special austenitic stainless steels. Good weldability in all positions, except vertical down; stable arc, medium slag removal, regular weld beads. Due to its composition the weld metal is highly resistant to corrosion and presents a high yield and a high tensile strength.

Main applications: Welding of Off-shore components, boilers, vessels, piping systems in the chemical and petrochemical industries as well as components of flue gas desulfurizing plants.
Note:"Inconel625" is a registered trade name of Inco Alloys.

Base materials

UNS	Alloy	DIN	Material N°
K81340	9%Ni	X8Ni9	1.5662
N06625	625	NiCr22Mo9Nb	2.4856
N08825	825	NiCr21Mo	2.4858
N08904	904L	X1NiCrMoCuN25 20 5	1.4539
N08926	254SMo	X1NiCrMoCuN25 20 6	1.4529

Typical Weld Metal Composition (%)

C	Si	Mn	Cr	Nb	Fe	Mo	Ni
<0.04	0.4	0.6	22.0	3.4	3.0	9.0	Rem.

All Weld Metal Mechanical Properties

$R_{p0,2}$ (MPa)	R_m (MPa)	A_5 (%)	KV (J)
>450	>760	>30	+20°C >70

Welding Current & Instructions

Electrode	ØxL (mm)	2,5x300	3,2x350	4,0x350	5,0x450
Current	(A)	50-70	70-100	90-120	140-160

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.

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