



DESCRIPTION

Pure nickel covered electrode

Electrode used for welding of pure nickel, cast iron, welding the clad side of nickel-clad steel and surfacing of steel wherever corrosion resistance in alkalis is required. The reaction of titanium with carbon in the weld metal holds free carbon to a low level so that the electrode can be used with low-carbon nickel (Nickel®200 and 201). The electrode is also suitable for dissimilar welding and various iron-base and nickel-base alloys. Excellent operability for groove and fillet welding in the down hand position.

SPECIFICATIONS

EN ISO 14172	E Ni 2061	AWS A5.11	ENI-1
Shielding	-	Positions	PA, PB, PC, PD, PE, PF
Current	DC+	Packaging Type	Carton box and tube.

ASME QUALIFICATIONS

F-No (QW432)	41
A-No (QW442)	-

CHEM. COMP. %	DEFAULT	MECHANICAL PROPERTIES	MIN. PER STANDARD				PRODUCT
			2.5 mm	3.2 mm	4.0 mm	4.8 mm	
C	0.02	Tensile strength R _m MPa		410		430	
Mn	0.3	Yield strength R _{p0.2} MPa		200		280	
Ni	96.7	Elongation A (L ₀ =5d ₀) %		18		30	
Al	0.03	Impact Charpy ISO-V		-		130J @ 20°C	
P	0.01	Impact Charpy ISO-V		-		-	
S	0.01	WELDING PARAMETERS					
Si	0.48		Ampere	50A - 80A	80A - 110A	110A - 150A	150A - 200A
Cu	0.01		Voltage	-	-	-	-
Fe	0.4		Packaging	60 pcs/kg	29 pcs/kg	19 pcs/kg	13 pcs/kg
Ti	1.2		Packaging Type	Carton box and tube.	Carton box and tube.	Carton box and tube.	Carton box and tube.

NOTES

Pcs/kg is indicative, actual number may vary ± 5%.



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Pure Nickel

DESCRIPTION

NICKEL ALLOYS

Pure Nickel

APPLICATION

These consumables are designed to provide pure nickel with low carbon content, enriched with the addition of titanium to ensure optimal grain refinement and superior deoxidation. They are particularly suitable for homogenous welds of pure nickel, buffer layers, and for the cladding of joint surfaces and flanges. The solid wire also proves ideal in welding cast iron, resulting in a soft and low-strength deposit. Typical applications include products such as tanks and vessels, process piping, and heat exchangers. They are widely used in chemical plants dedicated to salt production, chlorination processes, and caustic soda evaporation, as well as for handling corrosive alkalis and halides. They operate effectively at temperatures up to 150 °C, without the need for post-weld heat treatments (PWHT).

ALLOY TYPE

Low carbon pure nickel weld metal with titanium de-oxidation.

MICROSTRUCTURE

In the as-welded condition the microstructure consists of almost pure nickel austenite. It is strongly ferromagnetic at room temperature.

MATERIALS

EN W.Nr.: 2.4066 (Ni 99.6), 2.4068(LC-Ni99), 2.4061 (LC Ni 99.6)

UNS: N02200, N02201

PROPRIETARY: Nickel 200, 201 (Special Metals), Nickel 99.6, 99.2 (VDM)

