



DAIKOWS 208



NICKEL ALLOYS
Pure Nickel

DESCRIPTION

Solid pure nickel wire rod with titanium deoxidation

A nickel based wire rod alloyed with about 3 % Ti for welding of high purity nickel (min 99.6 %Ni), ordinary wrought nickel and nickel with reduced C content. It is also suitable for dissimilar welding of pure nickel to stainless steels, carbon steels, nickel alloys, Monel 400, cupronickel and cast iron. Applications include tanks and vessels, heat exchangers, piping in chemical plant for salt production, chlorination and evaporation of caustic soda and, in particular, wherever corrosion resistance in alkalis is required.

SPECIFICATIONS

ISO 18274	S Ni 2061	AWS A5.14	ERNi-1
DIN	-	Werkstoff Number	-
Certifications	-	Shielding	DAIKOFLUX 960-W
Positions	PA, PB, PC	Current	DC/AC

ASME QUALIFICATIONS	FERRITE	PREN	HARDNESS
F-No (QW432)	41	-	-
A-No (QW442)	-	-	-

CHEM. COMP. %	DEFAULT	MECHANICAL PROPERTIES	MIN	VARIANT
C	0.02	Tensile strength R _m MPa	380*	720
Mn	0.4	Yield strength R _{p0.2} MPa	0	450
Ni	96	Elongation A (L ₀ =5d ₀) %	0	45
Al	0.1	Impact Charpy ISO-V	-	60J @ -196°C
P	0.005	Impact Charpy ISO-V	-	-
S	0.005	WELDING PARAMETERS 2.4 mm		
Si	0.3	Ampere	300A - 410A	
Cu	0.02	Voltage	27V - 33V	
Fe	0.1	Packaging	Ø 1,6÷3,2mm	
Ti	3	Packaging Type	K415 spool and drums.	



The information in this datasheet is the result of detailed research and is considered accurate as of the publication date. However, we cannot guarantee its complete accuracy, and it is subject to change without notice. Actual results may vary due to many factors like welding procedures, material composition, temperature conditions, bevel configuration, and specific manufacturing techniques. We accept no liability for any errors or omissions in this datasheet. For the most current information, please visit www.daikowelding.com.



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APPLICATION

Characterized by a composition of low-carbon pure nickel with a strategic addition of titanium for refinement and deoxidation, this filler metal excels in various welding applications. Its proficiency extends to joining pure nickel, creating buffer layers, and contributing to the cladding of joint faces and flanges. The solid wire variant stands out for its remarkable proficiency in welding cast iron, resulting in a soft deposit characterized by low strength. These consumables find utility in critical scenarios, benefiting tanks, vessels, process pipework, and heat exchangers. Chemical plants engaged in salt production, chlorination processes, and caustic soda evaporation particularly value their application. Additionally, their corrosion-resistant attributes make them indispensable for handling aggressive substances such as corrosive alkalis and halides. With an operational temperature range extending up to 150°C, these consumables demonstrate their mettle without necessitating post-weld heat treatment (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).

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