



# DAIKOWM 208



NICKEL ALLOYS  
Pure Nickel

## DESCRIPTION

Solid pure nickel wire 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	I1, I3
Positions	PA, PB, PC, PD, PE, PF, PG	Current	DC+

## ASME QUALIFICATIONS

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

## FERRITE

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## PREN

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## HARDNESS

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## CHEM. COMP. %

	DEFAULT
C	0.02
Mn	0.4
Ni	96
Al	0.1
P	0.005
S	0.005
Si	0.3
Cu	0.02
Fe	0.1
Ti	3

## MECHANICAL PROPERTIES

	MIN	VARIANT
Tensile strength $R_m$ MPa	380*	620
Yield strength $R_{p0.2}$ MPa	0	500
Elongation A ( $L_0=5d_0$ ) %	0	43
Impact Charpy ISO-V	-	100J @ -196°C
Impact Charpy ISO-V	-	-

## WELDING PARAMETERS

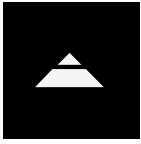
	1 mm	1.2 mm
Ampere	140A - 200A	150A - 210A
Voltage	23V - 27V	25V - 29V
Packaging	Ø 0,8÷1,6mm	Ø 0,8÷1,6mm
Packaging Type	Drums, DIN 760 reel, B300, D200 and D100 spools.	Drums, DIN 760 reel, B300, D200 and D100 spools.

V 01/2024



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](http://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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