

9% and 7% Ni steel welding consumables for LNG Cryogenic storage tanks

Characteristics

- Crack resistance and X-ray properties are excellent.
- Deposited metal shows excellent strength and toughness at low temperatures.
- Arc is stable, slag is easy to remove and bead appearance is smooth with good shape.

Applications

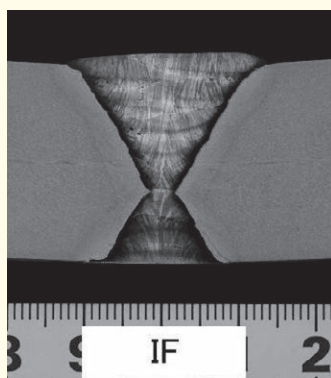
Welding of 9, 6-7 & 5% Ni steel for cryogenic storage tanks of LNG, Liquefied nitrogen, Ethylene etc.

Line up of welding consumable for 9% and 7% Ni steel

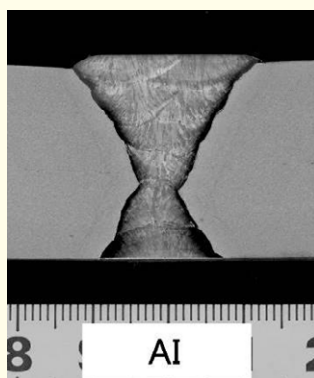
Welding method	Brand name	Size mm	Polarity	Welding position
FCAW	FC-9Ni (Shielding gas: CO ₂)	1.2	DCEP	Flat, Horizontal Vertical up
SMAW	NI9	2.6 × 350, 3.2 × 350 4.0 × 350, 5.0 × 350	AC	Flat, Horizontal Vertical up
	YAWATA™ WELD B(M)	3.2 × 350, 4.0 × 350 5.0 × 350	AC DCEP	Flat, Horizontal Vertical up, Over head
	NITTETSU™ WELD 196	2.6 × 300, 3.2 × 300 4.0 × 350, 5.0 × 350	AC DCEP	Flat, Horizontal Vertical up, Over head
SAW	NITTETSU FLUX 10H (flux) × NITTETSU FILLER 196 (wire)	Spool: 1.2, 1.6, 2.4 Coil: 2.4	DCEP	Flat, Horizontal Horizontal fillet
	BF-276 (flux) × Y-276 (wire)	Coil: 2.4	DCEP	Flat, Horizontal Horizontal fillet
GTAW (TIG)	NITTETSU FILLER 196	Spool: 1.2 Rod: 2.0 × 1000 2.4 × 1000, 3.2 × 1000	DCEN	Flat, Horizontal Vertical up, Over head



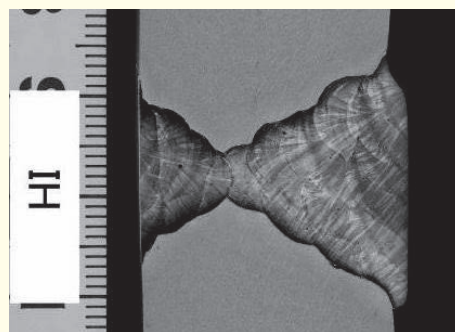
YAWATA and NITTETSU are trademarks or registered trademarks of NIPPON STEEL CORPORATION, and our company is licensed.



FC-9Ni
Flat position



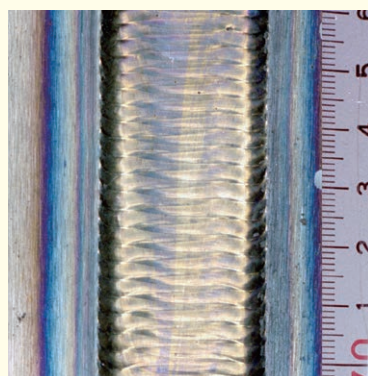
FC-9Ni
Vertical up



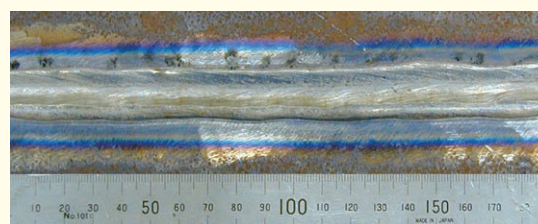
FC-9Ni
Horizontal



YAWATA™ WELD B (M)
Vertical up



NITTETSU™ FILLER 196
Vertical up



NITTETSU FLUX 10H × NITTETSU FILLER 196
Horizontal

Typical Mechanical Properties of All-Weld Metal

Welding method	Brand name	AWS specification	Mechanical properties			
			0.2%P.S. MPa	T.S. MPa	El. %	vE-196°C J
FCAW	FC-9Ni	—	445	699	47	88
SMAW	NI9	A5.11 ENiCrMo-6	450	720	51	84
	YAWATA WELD B(M)	A5.11 ENiCrFe-4	443	709	39	68
	NITTETSU WELD 196	A5.11 ENiMo-9	449	743	46	101
SAW	NITTETSU FLUX 10H (flux) × NITTETSU FILLER 196 (wire)	A5.14 ERNiMo-9 Modify	415	708	43	60
	BF-276 (flux) × Y-276 (wire)	A5.14 ERNiCrMo-4	470	715	46	103
GTAW (TIG)	NITTETSU FILLER 196	A5.14 ERNiMo-9	468	746	44	173

YAWATA and NITTETSU are trademarks or registered trademarks of NIPPON STEEL CORPORATION, and our company is licensed. WELDREAM is a trademark or registered trademark of NIPPON STEEL WELDING & ENGINEERING CO.,LTD..



Fumes and gas may be hazardous to your health. Please take appropriate preventive measures such as the implementation of ventilation as well as wearing a protector for breathing. Arc light is harmful to the eyes and skin. Please use appropriate shielding measures. Please do not touch anything where electricity is activated. It may cause death.

Request to Customers

- 1 Various data of distinctive features such as welding consumables, all-weld metal, weld metal, etc. shown in this catalog are provided for general information only and represent typical values. They do not constitute any representation or guarantee of performance, quality, or suitability for any specific application unless expressly agreed as specifications.
- 2 The properties and performance of welded structures, which cannot be determined by welding consumables alone, may vary depending on various factors such as structural design, chemical composition of base materials, fabrication method, welding conditions, environment, and operator skill. Users are solely responsible for evaluating and determining the suitability of the products for their intended applications, and appropriate verification and testing are recommended prior to use.
- 3 All information provided herein is based on available data at the time of publication and is subject to change without notice. We shall not be liable for any direct or indirect damages arising from the use of or any reliance upon the technical information contained in this catalog.

NIPPON STEEL WELDING & ENGINEERING CO.,LTD.

<https://www.weld.nipponsteel.com>

© 2024, 2026 NIPPON STEEL WELDING & ENGINEERING CO., LTD.

2609 (Y)