

NSSC SERIES

MARTENSITIC



High Strength high Rust-Resistant Ferritic Stainless Steel

NSSC 550

13Cr-1Ni-2Mo

Features and Applications

NSSC 550 is a martensitic grade with remarkably improved quench hardening.

1. Superior to SUS 304 in corrosion resistance by appropriate addition of Cr and Mo, as well as by control of trace elements.
2. Superior to SUS 304 in its performance of wire drawings as well as cold-heading.

[Applications] Self-tapping screws, High-strength nails, Various kinds of pins, High-strength chains and other applications requiring high hardness and high rust resistance

Characteristics

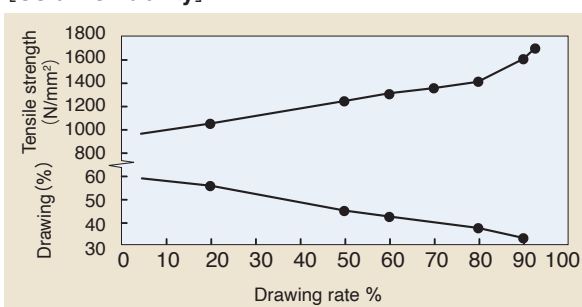
[Physical properties]

Longitudinal elastic modulus N/mm ²	Transverse elastic modulus N/mm ²	Density g/mm ³	Thermal expansion coefficient ×10 ⁻⁶ /°C
2.05×10 ⁵	7.94×10 ⁴	7.75	11.5

[Mechanical properties]

	Yield strength 0.2% offset N/mm ²	Tensile strength N/mm ²	Elongation %	Hardness HV	Impact value J/cm ²
After annealing	—	872	61	283	—
After tempering At 200°C following annealing at 1,150°C	1150	1750	29	550	80

[Cold workability]



[Rust resistance]

Pitting potential

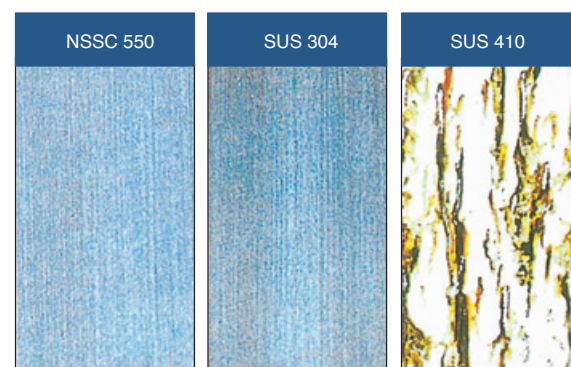
(Test conditions)

Solution of 3.5% NaCl, Ar deaeration at 30°C

	Pitting corrosion potential (mV vs, SCE)					
	-100	0	+100	+200	+300	+400
NSSC 550						
SUS 304						
SUS 410						

Salt spray test

(Test conditions) JIS Z 2371, 240 hours



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NIPPON STEEL CORPORATION

2-6-1 Marunouchi, Chiyoda-ku, Tokyo 100-8071 Japan
Tel: +81-3-6867-4111 Fax: +81-3-6867-5607
www.nipponsteel.com

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