

NSSC SERIES

FERRITIC



# High Rust-Resistant Ferritic Stainless Steel

## NSSC 436S

17Cr-1.2Mo-0.2Ti-LSi -LC,N / Similar grade : SUS 436L

### Features and Applications

NSSC 436S is a high-quality stainless steel having both improved corrosion (pitting corrosion) resistance and workability by adding Mo and Ti to high purity ferritic base material.

1. Superior to SUS 430LX in corrosion resistance, and excellent formability owing to its softness.
2. High performance intergranular corrosion resistance as well as drawability in weld zone.

[ Applications ] Automotive exhaust systems Kitchen furnishings, Home appliances, Building interior materials, Gates, Handrails

### Characteristics

#### [Mechanical properties]

	Yield strength 0.2% offset N/mm <sup>2</sup>	Tensile strength N/mm <sup>2</sup>	Elongation %	Hardness HV
Specification	≥205	≥390	≥25	≤170
Typical values	275	470	33	142

#### [Formability]

(Thickness:1.2mm)

	r value	n value	Erichsen value mm	Conical-cup mm
NSSC 436S	1.61	0.24	10.7	45.6
NSSC 180	1.14	0.24	9.9	46.8
NSSC 409L	1.30	0.24	—	—

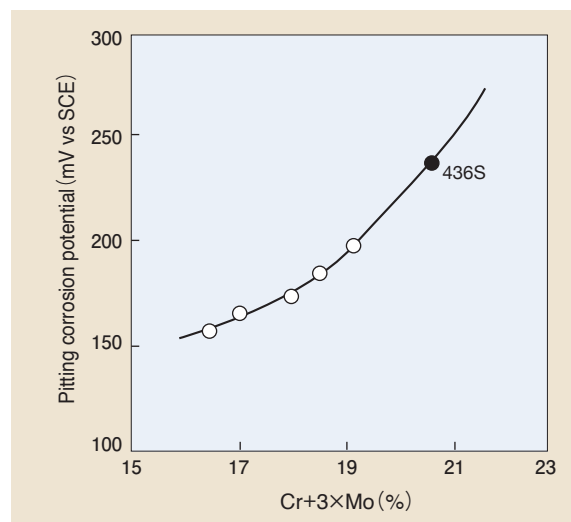
#### [Corrosion resistance]

##### (1) Measurement of pitting corrosion potential

(Test conditions)

Measurement conditions:30°C, 3.5% NaCl solution, Ar deaeration

Potential sweep rate :20mV/mm

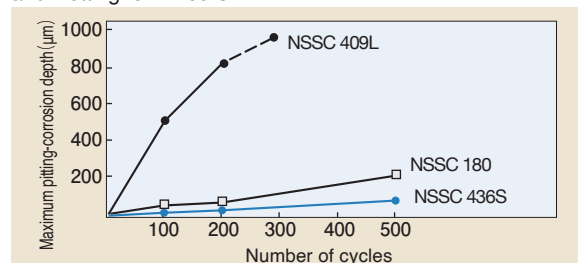


##### (2) Salt spray test

(Test conditions)

Artificial seawater/ASTM standard

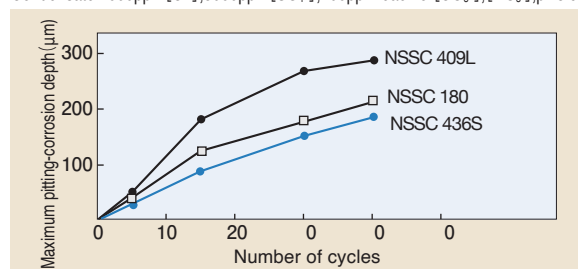
One cycle consists of 'spraying for 4 hours, drying for 2 hours and wetting for 2 hours'



##### (3) Automotive exhaust gas test using mimic condensate

(Test conditions)

One cycle consists of 'partial immersion in condensate, heating at 250°C for 3 hours and cooling'

 Condensate:1000ppm[Cl<sup>-</sup>],5000ppm[SO<sub>4</sub><sup>2-</sup>],100ppm each of[CO<sub>3</sub><sup>2-</sup>],[NO<sub>3</sub><sup>-</sup>],pH8.9


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