

NSSC SERIES

FERRITIC



High Weldability Ferritic Stainless Steel

NSSC 410WM (YUS 410W-MS)

11Cr-Ni-LC,N / Similar grade : SUS 410L

Features and Applications

NSSC 410WM has high performance yield strength, weldability and weld zone characteristics, and therefore suitable for welded structures with a thickness of over 3 mm above all.

1. Excellent weldability, enabling welding to be carried out without pre- and post-heating.
2. Excellent in bendability and toughness of weld joints.
3. Yield strength superior to that of SUS 410.
4. YUS 410W-MS is a grade designated by article 37 in the Japan Building Standards Law.

[Applications] Marine container frame materials, other equipment requiring high yield strength and bendability

Characteristics

[Mechanical properties]

		Yield strength 0.2% offset N/mm ²	Tensile strength N/mm ²	Elongation %	Hardness HV
Specification	Plate thickness	≥315	≥430	≥20	≤240
Typical values	t=4.5mm	412	510	28	157
	t=6.4mm	392	490	31	153

[Bendability]

	Thickness (mm)	Bending angle	Inside radius	Judgment
Specification	t ≤ 5.0	90°	1.0t	No cracking on outside bent zone
	5.0 < t ≤ 6.4	"	1.5t	"
	6.4 < t	"	2.0t	"
Results of test	t=4.5	"	1.0t	No cracking
	t=6.4	"	1.5t	No cracking

(Test specimens : JIS No.4)

[Toughness]

Thickness (mm)	Direction	NSSC 410WM			TP 409		
		vE ₀ J	vE ₂₀ J	vTrs °C	vE ₀ J	vE ₂₀ J	vTrs °C
4.5 ^{*1}	L	29	28	-86	—	—	—
	C	30	29	-82	—	—	—
6.5 ^{*2}	L	64	73	-80	32.4	37.3	-32
	C	49	53	-85	23.5	29.4	-32

*1: Subsize 3mm, Charpy test specimens (2mm V-notch)

*2: Subsize 5mm, Charpy test specimens (3mm V-notch)

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