

SW-410 Cored

FLUX CORED ARC WELDING CONSUMABLE
FOR WELDING OF MARTENSITE STAINLESS STEELS



SW-410 Cored

❖ Specification

AWS A5.22 E410T1-1/-4

JIS Z3323 TS410-FB1

❖ Applications

SW-410 Cored is designed for welding of martensite stainless steel such as 410,410S.

❖ Characteristics on Usage

1. SW-410 Cored is suitable for all position welding makes easier re-arcng ,beautiful bead appearance and better slag removability all-weld-metals is martensite having magnetic properties thus providing high hardness,good anti-abrasion properties.
2. SW-410 Cored can used to hardfacing of carbon steel and 13%Cr Stainless steel application due to high hardness of all weld metal and excellent resistance to corrosion and abrasion

❖ Note on Usage

Use 100% CO₂ gas or Ar+20~25% CO₂ gas

❖ Packing

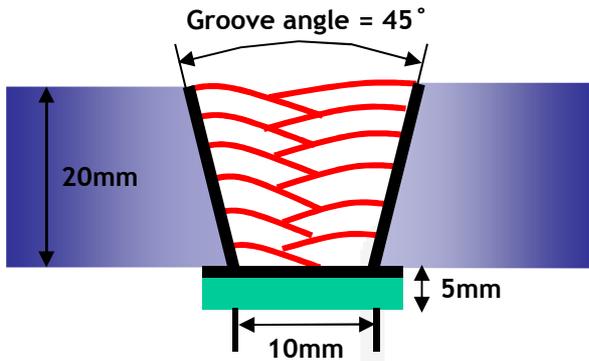
Dia.	1.2mm (0.045 in)		1.6mm (1/16 in)
	Spool *including ball pac	5kg (11lbs)	12.5kg (28lbs)



Mechanical Properties & Chemical Composition of All Weld Metal

❖ Welding Conditions

Method by AWS Spec.



[Joint Preparation & Layer Details]

Diameter(mm)	: 1.2mm(0.045in)
Shielding Gas	: 100% CO ₂
Flow Rate(ℓ /min.)	: 20~22
Amp./ Volt.	: 280 / 31
Stick-Out(mm)	: 20mm (0.79in)
Pre-Heat(°C)	: 205(401°F)
Interpass Temp.(°C)	: ≤315(599°F)
Polarity	: DC(+)

❖ Mechanical Properties of All weld metal

Consumable	Tensile Test		CVN Impact Test J(ft·lbs)			
	TS Mpa(ksi)	EI(%)	0°C (32°F)			
SW-410 Cored	600(87)	22.1	14(10)	13(9)	15(11)	11(8)
AWS A5.22 E410TX-X	≥ 520(75)	≥ 20	Not Specified			

❖ Chemical Analysis of All weld metal(wt%)

Consumable	Shielding Gas	Chemical Composition (%)								
		C	Si	Mn	P	S	Ni	Cr	Mo	Cu
SW-410 Cored	100%CO ₂	0.058	0.53	0.40	0.008	0.008	0.40	12.52	0.012	0.030
AWS A5.22 E410TX-X		≤0.12	≤1.0	≤1.2	≤0.04	≤0.03	≤0.6	11.0~13.5	≤0.75	≤0.75

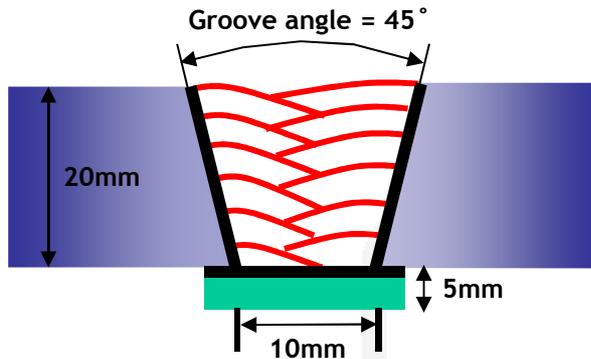
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Mechanical Properties & Chemical Composition of All Weld Metal

❖ Welding Conditions

Method by AWS Spec.



[Joint Preparation & Layer Details]

Diameter(mm)	: 1.2mm(0.045in)
Shielding Gas	: Ar+ 20% CO2
Flow Rate(ℓ /min.)	: 20~22
Amp./ Volt.	: 280 / 30
Stick-Out(mm)	: 20mm (0.79in)
Pre-Heat(°C)	: 205(401°F)
Interpass Temp.(°C)	: ≤315(599°F)
Polarity	: DC(+)

❖ Mechanical Properties of All weld metal

Consumable	Tensile Test		CVN Impact Test J(ft·lbs)			
	TS MPa(ksi)	EI(%)	0°C (32°F)			
SW-410 Cored	600(87)	22.9	14(10)	12(9)	16(12)	12(9)
AWS A5.22 E410TX-X	≥ 520(75)	≥ 20	Not Specified			

❖ Chemical Analysis of the weld metal(wt%)

Consumable	Shielding Gas	Chemical Composition (%)								
		C	Si	Mn	P	S	Ni	Cr	Mo	Cu
SW-410 Cored	100%CO2	0.068	0.52	0.53	0.006	0.010	0.41	12.51	0.012	0.027
AWS A5.22 E410TX-X		≤0.12	≤1.0	≤1.2	≤0.04	≤0.03	≤0.6	11.0~13.5	≤0.75	≤0.75

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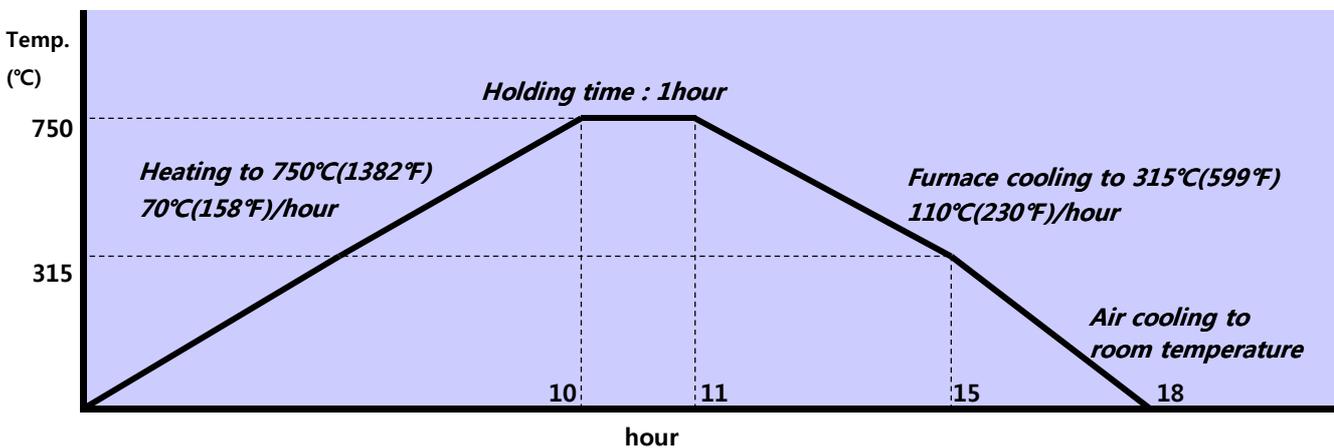


Mechanical Properties & Chemical Composition of All Weld Metal

❖ Bead Appearance

Horizontal Fillet(2F, PB) , Base : ASTM A36	Fillet Vertical up(3F, PF) , Base : STS 304L(6T)	
		
100% CO2(280A/31V)	100% CO2(160A/25V)	Ar+20% CO2(160A/24V)
		
Ar+20% CO2(280A/30V)		

❖ Post Weld Heat Treatment



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