



Product Data Sheet

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W.Kil	MC Kim	PDS-01-03 / Rev.1	2009. 09. 07.	1/2

Dual Shield 7100S

FCAW wire for mild steel and 490N/mm² class high tensile steel

General

Dual Shield 7100S is a multi-purpose un-baked type all position flux cored wire for use with CO₂ gas.

Shielding Gas: C1

Alloy Type: C Mn

Fill Type: Rutile

Classifications Weld Metal

ASME SFA/AWS A5.20 E71T-1C
KS D 7104 / JIS Z 3313 YFW-C50DR

Approvals

ABS	2SA 2YSA H10 (C1)
BV	SA2YM HH (C1)
DNV	II YMS H10 (C1)
GL	2YH10S (C1)
KR	RSW 51G(52G) HH (C1)
LR	2S 2YS H15 (C1)
NK	KSW52G H10 (C1)
CCS	2S 2YS H10 (C1)

Welding Parameters

Diameter	Position	Current (A) Range	Voltage (V) Range
1.2mm	Flat	140 ~ 300	21 ~ 30
	Vertical - up	140 ~ 240	21 ~ 25
1.4mm	Flat	160 ~ 370	22 ~ 32
	Vertical - up	150 ~ 260	21 ~ 26
1.6mm	Flat	170 ~ 430	23 ~ 34
	Vertical - up	160 ~ 270	22 ~ 27

*DC Electrode Positive(Reverse) Polarity, Electrical Stick out : 13 ~ 25mm



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Chemical Coition of Weld Metal				Diffusible Hydrogen of Weld Metal	
All Weld Metal (%)					
	Min	Max	Typical		
C		0.18	0.035		
Si		0.90	0.565		
Mn		1.75	1.382		
P		0.03	0.011		
S		0.03	0.009		
Cr		0.2	0.026		
Ni		0.5	0.015		
Mo		0.3	0.005		
V		0.08	0.019		
Cu		0.35	0.016		

Mechanical Properties of Weld Metal						
Properties	All Weld Metal			80%Ar/20%CO ₂ Shielding Gas (M21)		
	CO ₂ Shielding Gas (C1)					
	As welded			As welded		
	Min	Max	Typical	Min	Max	Typical
Yield Stress (MPa)	400		490			
Tensile Stress ((MPa)	490	670	558			
Elongation (%)	22		31			
CVN Impact Value (J)						
0°C			112			
-20 °C			73			

Standard Packaging		
Diameter	Spool	Pail
1.2mm	5, 12.5, 15, 20kg	100, 200kg
1.4mm	12.5, 15kg	100, 200kg
1.6mm	12.5, 15kg	