



Product Data Sheet

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W.Kil	MC Kim	PDS-01-45 / Rev.0	2005. 11. 17.	1/2

Coreweld 111Ultra

Semi-metal type FCAW wire for mild steel and 490N/mm² class high tensile strength steel

General

Coreweld 111Ultra is a low slag type cored wire with a bright surface finish that is specially designed to provide very high deposition rates, high deposition efficiency. and low fume emission rates. This wire is most suitable for fillet welding of inorganic zinc primer coated steels in the shipbuilding.

Shielding Gas: C1

Alloy Type: C Mn Ni

Fill Type: Metal

Classifications Weld Metal

ASME SFA/AWS A5.20 E70T-9
KS D 7104 / JIS Z 3313 YFW-C502M

Approvals

ABS 3SA 3YSA H10 (C1)
3A 3YA H10 (C1) - Tandem
BV SA3YM (C1)
A3YM (C1) - Tandem
DNV III YMS H10 (C1)
III YM (C1) - Tandem
GL 3YS (C1)
3YM (C1) - Tandem
KR RSW 53G (C1)
RAW53MG (C1) - Tandem
LR 3YS (C1)
3M 3YM (C1) - Tandem
NK KSW53MG (C1) - Tandem
RINA 3YS H10 (C1)
CCS 3S 3YS H10 (C1) /
3M 3YM - Tandem

Welding Parameters

Diameter	Position	Current (A) Range	Voltage (V) Range
1.2mm	Flat	140 ~ 330	22 ~ 34
	Vertical - up	-	-
1.4mm	Flat	160 ~ 390	23 ~ 38
	Vertical - up	-	-
1.6mm	Flat	170 ~ 460	24 ~ 42
	Vertical - up	-	-

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



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Chemical Composition of Weld Metal				Diffusible Hydrogen of Weld Metal		
	All Weld Metal (%)					
	Min	Max	Typical			
C	0.02	0.09	0.057			
Si	0.30	0.80	0.652			
Mn	0.09	1.70	1.375			
P		0.025	0.013			
S		0.025	0.009			
Cr		0.2	0.023			
Ni		0.5	0.348			
Mo		0.2	0.002			
V		0.08	0.012			
Nb		0.05	0.008			
Cu		0.3	0.014			

Mechanical Properties of Weld Metal						
Properties	All Weld Metal			80%Ar/20%CO ₂ Shielding Gas (M21)		
	CO ₂ Shielding Gas (C1)			As welded		
	Min	Max	Typical	Min	Max	Typical
Yield Strength (MPa)	400		500			
Tensile Strength (MPa)	490	660	580			
Elongation (%)	22		30			
CVN Impact Value (J)						
-20°C			67			
-29°C			43			

Standard Packaging		
Diameter	Spool	Pail
1.2mm	12.5, 15kg	100, 200kg
1.4mm	12.5, 15kg	100, 200kg
1.6mm	12.5, 15kg	300kg