



# Product Data Sheet

Prepared by	Approved by	PDS No & Rev.	Issue Date	Page
W.S. YANG	MC Kim	PDS-01-42 / Rev.4	2010. 07. 01	1/2

## Coreweld 70

Metal type FCAW wire for mild steel and 490N/mm<sup>2</sup> class high tensile strength steel

### General

Coreweld 70 is a metal cored wire that combines the high deposition rates of a rutile slag flux-cored electrode with the high efficiencies of solid wire.

**Shielding Gas:** C1, M21

**Alloy Type:** C, Mn

**Fill Type:** Metal

### Classifications Weld Metal

ASME SFA/AWS A5.18 E70C-6C/6M  
KS D7104 / JIS Z3313 YFW-A50DM  
(‘09) JIS Z3313 T490T15-0C(M)A-U  
AS 2203.01 ETD-GMp-W503A, CM1

### Approvals

ABS E70C-6M (M21)  
BV SA3YM HH (M21)  
DNV III YMS H10 (M21)  
GL 3YH10S (M21)  
LR 3S 3YS H10 (M21)

### Welding Parameters

Diameter	Position	Current (A) Range	Voltage (V) Range
1.2mm	Flat	180 ~ 350	24 ~ 33
	Vertical - up	140 ~ 220	20 ~ 24
1.4mm	Flat	200 ~ 430	26 ~ 34
	Vertical - up	150 ~ 240	21 ~ 25
1.6mm	Flat	300 ~ 500	27 ~ 35
	Vertical - up	-	-
2.0mm	Flat	350 ~ 550	28 ~ 36
	Vertical - up	-	-
2.4mm	Flat	400 ~ 600	29 ~ 37
	Vertical - up	-	-

\*DC Electrode Positive (Reverse) Polarity, Electrical Stick out: 13 ~ 30mm



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Chemical Composition of Weld Metal					Diffusible Hydrogen of Weld Metal	
All Weld Metal (%)					AWS A4.3	
	Min	Max	CO <sub>2</sub> 100%	Ar75% + CO <sub>2</sub> 25%	Max 4 ml/100gr	
C	0.02	0.08	0.05	0.06		
Si	0.20	0.80	0.49	0.58		
Mn	1.00	1.70	1.31	1.44		
P		0.025	0.013	0.014		
S		0.025	0.011	0.013		
Cr		0.2	0.022	0.023		
Ni		0.5	0.013	0.014		
Mo		0.2	0.001	0.001		
V		0.08	0.003	0.004		
Nb		0.05	0.003	0.002		
Cu		0.3	0.012	0.015		

### Mechanical Properties of Weld Metal

Properties	All Weld Metal CO <sub>2</sub> Shielding Gas (C1)			75%Ar/25%CO <sub>2</sub> Shielding Gas (M21)		
	As welded			As welded		
	Min	Max	Typical	Min	Max	Typical
Yield Strength (MPa)	400		439	400		457
Tensile Strength (MPa)	490	660	548	490	660	565
Elongation (%)	22		26	22		28
CVN Impact Value (J)						
-18°C			58			62
-29°C			44			48

### Standard Packaging

Diameter	Spool / Coil	Pail
1.2mm	12.5, 15kg Spool	100, 200kg
1.4mm	12.5, 15kg Spool	100, 200kg
1.6mm	12.5, 15kg Spool	300kg
2.0mm	25kg Coil	
2.4mm	25kg Coil	