



Product Data Sheet

Prepared by	Approved by	PDS No & Rev.	Issue Date	Page
W.J Jung	W.Kil	PDS-01-19-A / Rev.0	2025. 04. 16.	1/2

Weld 71T-1

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

General

Weld 71T-1 is a multi-purpose all position flux cored wire for use with CO₂ or CO₂ /Ar mixed gas.

Shielding Gas: C1 or M21

100%CO₂

Ar/CO₂ mixtures up to 75% Ar

Alloy Type: C Mn

Fill Type: Rutile

Classifications Weld Metal

ASME SFA/AWS A5.20 E71T-1C/1M
KS D 7104 YFW-C502R/A502R
JIS Z 3313 T49J0T1-1C/MA-U
ISO 17632-B T49 3 T1 1 M/C AU H10

Approvals

ABS	3YSA H10 (C1)
BV	S3YM H10 (C1, M21)
CCS	3YSH10 (C1)
DNV	III YMS(H10) (C1)
RS	3YSMH10 (C1, M21)
LR	3YSH10 (C1)
FBTS	E71T-1C (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 ~ 360	22 ~ 32
	Vertical - up	150 ~ 260	21 ~ 26
1.6mm	Flat	170 ~ 410	23 ~ 34
	Vertical - up	160 ~ 270	22 ~ 27

*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	C1 Typical	M21 Typical
C		0.12	0.05	0.05
Si		0.90	0.36	0.41
Mn		1.75	1.25	1.32
P		0.03	0.012	0.013
S		0.03	0.006	0.006
Cr		0.20	0.02	0.02
Ni		0.50	0.02	0.02
Mo		0.30	0.003	0.004
V		0.08	0.02	0.02
Nb		-	0.01	0.01
Cu		0.35	0.01	0.01

Mechanical Properties of Weld Metal						
Properties	All Weld Metal CO ₂ Shielding Gas (C1)			75%Ar/25%CO ₂ Shielding Gas (M21)		
	As welded			As welded		
	Min	Max	Typical	Min	Max	Typical
Yield Stress (MPa)	400		495	400		530
Tensile Stress ((MPa)	490	660	560	490	660	585
Elongation (%)	22		31	22		32
CVN Impact Value (J)						
-20°C	27		80	27		110
-30 °C			60			85

Standard Packaging		
Diameter	Spool	Pail Pack
1.2mm	5, 12.5, 15kg	
1.4mm	12.5, 15kg	
1.6mm	12.5, 15kg	