



Product Data Sheet

Prepared by	Approved by	PDS No & Rev.	Issue Date	Page
Y.J.Kim	W.Kil	PDS-06-12 / Rev.0	2022. 08. 30	1/2

Coreshield 81T-8 Ni2

Self-shielded FCAW wire for mild steel

General

Coreshield 81T-8 Ni2 is a self-shielded flux cored wire designed to weld critical structural applications, such as offshore TKY joints, pipe structures, bridges, storage tank while maintaining excellent arc characteristics and high welder appeal. It features a diffusible hydrogen content lower than 8.0ml/100g. It also designed to provide excellent low temperature impact toughness under -40°C.

Shielding Gas: None

Alloy Type: C-Mn-Ni-Al

Fill Type: Basic/fluoride, Fast-freezing

Classifications Weld Metal

Approvals

ASME SFA/AWS A5.29 E81T8-Ni2 J H8
ASME SFA/AWS A5.36 E81T8-A4- Ni2 H8
ISO 17632-A T46 4 2Ni Y 1 H10

Welding Parameters

Diameter	Position	Current (A) Range	Voltage (V) Range
2.0mm	Flat & Horizontal	160 ~ 250	19 ~ 23
	Vertical up/down	160 ~ 200	18 ~ 20

*DC Electrode Negative Polarity(DCEN), Electrical Stick out: 20mm



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Chemical Composition of Weld Metal				Diffusible Hydrogen of Weld Metal
All Weld Metal (%)				
	Min	Max	Typical	
C		0.12	0.06	AWS A4.3 Max 8 ml/100gr
Si		0.80	0.12	
Mn		1.50	1.05	
P		0.030	0.008	
S		0.030	0.003	
Cr		-	0.03	
Ni	1.75	2.75	2.15	
Mo		-	0.02	
V		-	0.000	
Al		1.8	0.90	

Mechanical Properties of Weld Metal

Properties	All Weld Metal		
	Shielding gas : None		
	As welded		
	Min	Max	Typical
Yield Strength (MPa)	470		512
Tensile Strength (MPa)	550	690	590
Elongation (%)	19		24
CVN Impact Value (J) -40°C	27		176

Standard Packaging

Diameter	Spool	Pail
2.0mm	2, 5, 6, 12.5, 15 kg	-