HYUNDAI WELDING

Rev. 00

ST-2N

AWS A 5.28/ ASME SFA 5.28 ER80S-Ni2

EN ISO 636-A: W2Ni2

HYUNDAI WELDING CO., LTD.

ST-2N

❖ Specifications

AWS A 5.28: ER80S-Ni2
EN ISO 636-A: W2Ni2

❖ Alloy type

2.5Ni for good low temperature toughness.

❖ Applications

Low alloy copper-coated tig rod designed for welding low alloy steels with 2% Ni content, fine grained for low temperature applications. Suitable for the construction of offshore platforms, tanks and pipelines, where good fracture toughness from as-welded joints is demanded down to temperatures in the region of -60˚C.

❖ Materials to be welded

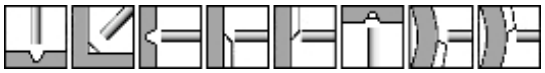
ASTM		EN	
A 203 Gr A, B	API 5 LX65	10025 S355	10113-3 S420
A 333 Gr 6		10208-2 L360	10028-4 11MnNi 5-3
A 350 Gr LF1, LF2		10208-2 L415	10028-4 13MnNi 6-3
A 352 Gr LC2		10208-2 L455	10028-4 15NiMn 6
API 5LX52		10113-2 S355	10222-3 13MnNi 6-3
API 5LX56		10113-2 S420	10222-3 15NiMn 6
API 5LX60		10113-3 S355	

❖ Welding guidelines

Preheat and interpass temperature 150˚C. PWHT at 620˚C for an hour.

❖ Technical information

Gas: Argon 100% (EN ISO 14175)
Welding position: all positions



❖ Welding parameters

Current	DC - Straight polarity					
Diameter (mm)	1.2	1.6	2.0	2.4	3.2	4.0
Length (mm)	1000	1000	1000	1000	1000	1000
Carton	5/25KG	5/25kg	5/25kg	5/25kg	5/25kg	5/25kg

* tolerances according to EN ISO 544 specification.

Typical chemical composition of wire

C %	Mn %	Si %	S %	P %	Cr %	Ni %	Mo %	Cu %
0.10	1.00	0.55	0.01	0.01	-	2.30	-	0.12

Typical mechanical properties

GAS		Yield strength Rs (Mpa)	Tensile strength Rm (Mpa)	Elongation on % 5d A 5d %
I1	as welded	520	580	25
I1	After PWHT	480	570	27

Impact energy (Charpy V)				
+20°C (Joule)	0°C (Joule)	-20°C (Joule)	-40°C (Joule)	-60°C (Joule)
-	-	150	100	80
-	-	-	110	90