Selectarc WELDING

SELECTARC UP S2Ni3

Soild SAW Wire

Classification

AWS A5.23 : ENi 3 ISO 14171-A : S2Ni3

Characteristics

Wire for SAW process for fine grain construction steels and nickel alloyed steels. Resistant to low temperature down to – 70°C. Good characteristics of cold toughness. Wire to be used with our flux we recommend our type UP BF 10, classification S A FB 1 55 AC.

Applications

Submerged arc welding of fine grain steels with low temperature toughness and Nickel-Alloy steels upto 3.5 % Ni for Vessel, Apparatus and Tank construction as well as Pipe used for low temperature toughness requirements down to – 100°C. Frequently used for liquid gas distribution Pipes, Tanks, Off-shore and Petro-chemical Industry.

Base Materials

Material N°	EN
Nickel - Alloy steels	10 Ni14 and 12Ni14
Fine grain steels	EN 10025 , EN 10028 and ASTM : P355ML2 / S355ML to P460ML2 S460QL1 and ASTM A633 Gr. E

Typical Wire Composition (%)

C	Mn	Si	Ni	Cr	P	S	Cu	Fe
0.08	0.95	0.20	3.30	0.15	0.015	0.010	0.25	base

All Weld Metal Mechanical Properties (Typical)

Conditions	UTS Rm (MPa)	YS Rp0.2 (MPa)	% Elg A_5	Impact (KV) Temp.°C	J
AW	620	510	27	- 20	155
				- 40	130
PWHT	580	475	29	- 20	140
				- 40	120
				- 105	45

PWHT : After heat treatment at 590°C / 15hrs

Welding Current & Instructions

Ø (mm)	Polarity	Current (A)	Voltage (V)	Stick out (mm)	Flux
2.4	= +	200 - 400	28 - 32	~ 24	UP BF 10
3.2	= +	300 - 500	28 - 32	~ 32	
4.0	= +	500 - 700	29 - 33	~ 40	