WELDING

SELECTARC UP Ni625

SAW Wire

Classification

AWS A5.14 : ERNiCrMo3 Material N° : 2.4831

ISO 18274 : S-NiCr22Mo9Nb DIN 1736 : SG Ni Cr 21 Mo 9 Nb

Characteristics

Nickel-chromium alloy 625 (UNS N06625/W.Nr.2.4856) is used for its high strength and outstanding corrosion resistance. Service temperatures range from cryogenic to 1800°F (982°C).It is an excellent choice for sea-water applications are freedom from local attack (pitting and crevice corrosion). High corrosion resistant fatigue strength, high tensile strength, and resistance to chloride-ion stress-corrosion cracking. Used for joining of high nickel alloys as well as for special austenitic stainless steels. Excellent resistance to pitting, crevice and stress corrosion cracking in the presence of chlorides. Highly resistant at low temperatures, therefore also applied to weld 9% Ni steels.

Applications

Welding of Offshore components, Boilers, Vessels, Piping systems in the Chemical and Petrochemical industries as well as components of Flue gas De-sulfurizing plants..

Base Materials

UNS	Alloy	DIN	Material N°
K81340	9%Ni	X8Ni9	1.5662
N06625	625	NiCrMo9Nb	2.4856
N08825	825	NiCr21Mo	2.4858
N08904	904L	X1NiCrMoCuN25 20 5	1.4539
N08926	254SMo	X1NiCrMoCuN25 20 6	1.4529

Typical Wirel Composition (%)

C	Si	Mn	Cr	Fe	Nb	Mo	Ti	Al	P	S	Ni
0.030	0.240	3.00	21.50	2.50	3.50	8.90	0.230	0.080	0.010	0.007	base

All Weld Metal Mechanical Properties (Typical)

Conditions	UTS Rm (MPa)	YS Rp0.2 (MPa)	% Elg A_5	Impact (KV) Temp.°C	J
AW	760	450	40	+ 20	140
				- 196	70

Welding Current & Instructions

Process	Ø (mm)	Welding Parameters				Flux
		Current (A)	Voltage (V)	Speed cm/mim	Stick out (mm)	
SAW = +	1.60	200 - 250	27 - 30	45 - 60	~ 13	UP WP 380M UP WP 380 UP Ni02
	2.00	220 - 330	27 - 30	45 - 60	~ 16	
	2.40	300 - 360	27 - 30	50 - 70	~ 19	

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