FCW NI625

Rutile-basic cored wire
Alloy 625 type

Classification

AWS A5.34 : ENiCrMo3T0-4 ISO 12153 : T Ni 6625 (NiCr22Mo9Nb) B M21 3

Description & Applications

Flux cored nickel base wire for gas shielded (Ar + CO_2) arc welding in flat position of high nickel alloys such as Inconel 625* type as well as for special austenitic stainless steels. Excellent resistance to pitting, crevice and stress corrosion cracking in the presence of chlorides. Could be used for cryogenic applications due to its high mechanical properties at low temperature. Used for dissimilar assembly as low alloy steel and stainless steels or nickel base alloys.
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Main applications: Cladding on steels of 5% and 9% Ni. Used in the construction of equipment submitted to oxidizing and corrosive attacks at high temperatures.

Typical Chemical Composition (%)

	C	Si	Mn	Cr	Mo	Fe	Cu	Nb+Ta	Ti	P	S	Ni
Min				20.0	8.0			3.15				58.0
Max	0.10	0.50	0.50	23.0	10.0	5.0	0.50	4.15	0.40	0.020	0.015	
Type	0.025	0.30	0.40	21.0	9.0	0.40	0.01	3.4	0.15	0.01	0.01	>58.0

∑ Others elements : <0.50

All Weld Metal Mechanical Properties

	$R_{p0.2}$ (MPa)	R_m (MPa)	A_5 (%)	KV (J)	
Min	420	690	25		
Max					
Type	500	780	40	-196°C	60

Welding Current & Instructions

Welding mode	Wire Ø (mm)	Welding parameters			Shielding Gas
		Current (A)	Voltage (V)	Stick-out (mm)	
FCAW = +	1.2 1.6	130 - 250 150 - 300	24 - 32 24 - 32	12 - 25 12 - 25	ISO 14175 : M21 (Ar/CO_2) 10 - 20 l/min