EQNICR-3

NiWire Industries
www.niwire.com

EQNiCr-3 is used for submerged arc and electroslag overlay welding of hydrogenation equipment, coal chemical industry, nuclear container, urea equipment.

Specification

AWS A5.14 Class EQNiCr-3
AWS A5.14m Class EQNiCr-3
EN ISO 18274: B Ni 6082

Features

1. Used with Flux NWF-S600 for submerged arc welding, used with Flux NWF-E600 for electroslag welding.
2. The weld bead metal is pure, the surfacing efficiency is high, the base material dilution rate is low, the weld bead is beautifully formed, and the overlap is smooth.

Chemical Composition

Weld Metal Type		Alloy wt%								
		C	P	S	Mn	Si	Cr	Ni	Fe	Nb+Ta
EQNiCr-3	Required	0.10	0.03	0.015	2.5-3.5	0.50	18.0-22.0	≧67.0	3.0	2.0-3.0
	Sample	0.019	0.001	0.001	3.1	0.23	20.7	Bal.	0.5	2.4
Deposited Metal	Required	-	-	-	-	-	-	-	-	-
	SAW	0.025	0.002	0.001	2.50	0.35	20.0	Bal.	2.5	2.2
	ESW	0.023	0.001	0.001	2.89	0.45	20.5	Bal.	1.3	2.3

Mechanical Properties

Welding Process	Overlay Layer	Deposited Metal Thickness	4T 180° Side Bending	Intergranular corrosion
SAW	Surface layer	3.2 mm	No crack	pass
ESW	Surface layer	3.6 mm	No crack	pass

Sizes and recommended parameters

Process	Size (mm)	Current (A)	Voltage (V)	SPEED (mm/min)	Flux Thickness (mm)	Deposited Metal Wide (mm)	Deposited Metal Thick (mm)
SAW	0.5x60	700-900	24-30	140-220	20-30	4-8	3.0-5.0
ESW	0.5x60	700-1000	24-30	140-220	20-30	5-12	3.0-5.0