

SAW FLUX: Nickel-based Alloy



WF-620

Specification	EN760
Classification	SA AF 2 DC

Application and Properties:

WF-620 is used for butt weld of INCONEL alloy 600, INCOLOY alloy 800, nickel-based alloys, and ferrite materials. It is suitable for welding 9%Ni steel with WW-NICKEL-6625. All dust, oil and rust should be removed before welding, flux should be welded with DCEP.

Minimum silicon is transferred from the flux to weld metal; thereby minimizing the risk of hot cracking when welds with nickel-based alloys.

Metallurgical Behavior	Minimum burn-off of alloy elements
Basicity	2.2 (BIIW)
Grain Size	10-60 mesh
Current	DC+
Redried	300-350°C × 2hrs

Mechanical Properties of Deposited Metal

Wire	Yield Stress (MPa)	Tensile strength (MPa)	Elongation (%)	Charpy V notch impact strength (J)
				-196°C
WW-NICKEL-6625	≥450	≥680	≥40	≥40
WW-NICKEL-6082	≥360	≥600	≥40	≥40

Chemical Composition of Deposited Metal (%)

Wire	C	Mn	Si	Cr	Ni	Mo
WW-NICKEL-6625	≤0.03	≤0.50	≤0.50	20.0-23.0	bal	8.0-10.0
WW-NICKEL-6082	≤0.03	2.50-3.50	≤0.50	18.0-22.0	bal	Nb+Ta 2-3