



GMAW/GTAW NICKEL ALLOYS

AUTOMIG NiCr-3 / TIGFIL NiCr-3

NiCr-3 TYPE NICKEL ALLOY WIRE



CLASSIFICATION : EN ISO 18274 AWS A/SFA 5.14 **APPROVALS :**

Automig NiCr-3: SNI 6082	ERNiCr-3	-
Tigfil NiCr-3: SNI 6082	ERNiCr-3	IBR

KEY FEATURES :

- A low carbon Ni-Cr solid wire
- Typical 72Ni/20Cr/3Mn/2.5Nb+Ta alloy
- Suitable for cryogenic to high temperature application
- High corrosion and oxidation resistance
- Excellent toughness at low temperatures
- Radiographic weld quality

WELDING POSITION :



GMAW: DCEP
GTAW: DCEN

Shielding Gas	Gas Flow Rate, LPM	Stickout, mm
GMAW: Ar or Ar/He	15-22	10-20
GTAW: Ar	10-15	-

TYPICAL APPLICATIONS :

- Welding of Ni-Cr-Fe alloys
- Dissimilar welding of Ni based alloys and cladding
- For joints sensitive to thermal loading above 300°C to prevent carbon diffusion
- Joining steels to stainless steels or Ni based alloys
- Applications in pressure vessels, boilers, fittings, machines and apparatus constructions

STORAGE / HANDLING :

Keep dry and follow handling instructions mentioned on the box

CHEMICAL COMPOSITION OF BARE SOLID WIRE, Wt% :

	C	Mn	Fe	S	P	Si
Specification	0.10 max	2.5-3.5	3.0 max	0.015 max	0.03 max	0.50 max
	Cu	Co	Ti	Cr	Nb + Ta	Ni
Specification	0.50 max	0.12 max	0.75 max	18.0-22.0	2.0-3.0	67.0 min

MECHANICAL PROPERTIES OF ALL WELD METAL :

	Condition	UTS, MPa	EL%
Typical	As Welded	550	33

Mechanical properties will vary with the type of shielding gas used.

PACKING DATA :

Automig NiCr-3	Ø, mm		Kg/Spool	
	0.8		12.5	
	1.2		12.5	
	1.6		12.5	
	2.0		12.5	
Tigfil NiCr-3	Ø x L, mm	Primary Box, Kg	No. of Primary Boxes	Net Wt. of Carton, Kg
	2.4 x 1000	5	4	20
	3.2 x 1000	5	4	20