

NiCro 52M Tig

CATEGORY GMAW-GTAW Solid wires

TYPE Solid nickel base welding wire for Tungsten Inert Gas (Tig) welding.

APPLICATIONS Nicro 52M filler metal is used for welding nickel-chromium-iron (Inconel 690) alloys to themselves, and for dissimilar welding between nickel-chromium-iron alloys and steels or stainless steels. The applications include surfacing as well as clad-side welding. This product contains Boron and Zirconium to minimize the tendency for ductility-dip cracking, while it is especially resistant to oxide "floaters" and inclusions.

PROPERTIES Excellent resistance against oxidizing media combined with high mechanical strength at room temperature but also at extreme high temperatures combined with high ductility due to the high chromium content. Alloy 690 was developed to offer greater resistance to stress corrosion in the nuclear industry, pure water environment. Similar to FM 52 but the 52M is for nuclear application where a specific (very strict) chemical analysis is requested.

CLASSIFICATION AWS A 5.14: ER NiCrFe-7A
UNS: N06054
EN ISO 18274:

SUITABLE FOR Inconel 690, VDM Alloy 690, Nicrofer 6030 N, FM 52...

APPROVALS CE approved

WELDING POSITIONS:



WELD METAL ANALYSIS %

C	Mn	Si	Cr	S	N	Ti	Fe	Co	Cu	Al	Ni	B	Zr
< 0.04	< 1.0	< 0.5	28-31.5	< 0.015	0,014	<1,0	7-11	< 0.12	< 0.30	<1.10	Rem	0.005	0.02

MECHANICAL PROPERTIES

Heat Treatment	R _{p0,2} (N/mm ²)	R _m (N/mm ²)	A ₅ (%)	Impact Energy (J) ISO-V +20°C	Hardness HB
annealed	> 260	> 580	>30		150-240
as drawn	~772	~872	~16		

WELDING PARAMETERS / PACKING

Welding Parameters			Packing (kg)	
D (mm)	Length	Current (A) (DC-)	single	master
1.6	1000	50-80	5	25
2.4	1000	110-180	5	25
3.2	1000	140-280	5	25

REDRYING TEMPERATURE not required

GAS ACC. EN ISO 14175: I1