NICROTIG 600

TIG Rods [GTAW]

Nickel alloys

CLASSIFICATION:	APPROVALS:	APPLICATION:
EN ISO 18274-A : S Ni 6082 (NiCr20Mn3Nb) DIN 1733 : SG NiCr20 Nb AWS A-5.14 : ER NiCr-3	CE, TUV	Power generation industry Constructions & Engineering Petrochemical and chemical industry

- Nickel based wire used for welding nickel alloys (such as alloy 600 and alloy 601) and for joining austenitic and ferritic steels operating at temperatures exceeding 300°C and for dissimilar joints.
- Connections of nickel alloy steels with austenitic steels, nickel alloys with ferritic steels and austenitic steels with ferritic steels.
- It is used in joints of dissimilar carbon-manganese steels and unalloyed steels.
- High resistance to oxidation at high temperatures. High resistances in sulfur-free atmospheres.
- Resistant to thermal shocks.
- It is not susceptible to brittleness, carbon diffusion at elevated temperatures is significantly inhibited.
- Corrosion resistant, fully austenitic, low coefficient of thermal expansion.

Application

Chemical industry: heaters, condensers, trays. Heat treatment industry: muffs, retorts, baskets, furnace accessories. Nuclear, aviation industry. Reactor vessels and heat exchanger tubes used in the production of vinyl chloride. Process equipment used in the production of chlorinated and fluorinated hydrocarbons. Seals, fans and retort furnace equipment. Roller furnaces and radiant tubes, especially in coal nitriding processes. Linings for barges and road tankers. Production of gasoline stabilizers, phenolic condensers, production of soap, vessels for the production of fatty acids. Industrial chemical evaporators, industrial acid and alkali equipment, afterburner parts and other components used in high temperature, vacuum furnace equipment, alkaline cookers, catalyst regenerators in chemical production. Consumable material for welding dedicated alloys, cryo steel, for welding dissimilar joints, hardfacing.

Base material

DIN	W.Nr.	ASTM
NiCr20Ti	2.4630	
NiCr21TiAl	2.4631	
NiCr15Fe7TiAl	2.4669	
NiCr15Fe	2.4816	B168-Alloy 600
LC-NiCr15Fe	2.4817	Alloy 600L
NiCr23Fe	2.4851	Alloy 601(H)
NiCr6015	2.4867	
NiCr8020	2.4869	
NiCr10	2.4870	
NiCr10Ti	2.4951	Alloy 75
12Ni14	1.5637	
X8Ni9	1.5662	
12Ni19	1.5680	
X12CrNi 18 9	1.6900	
GX8CrNi 18 10	1.6901	
X10CrNiTi 18 10	1.6903	
X5CrNi 18 10	1.6906	
NiCr20TiAl	2.4952	Alloy 80A
X10NiCrAlTi 32 20	1.4876	Alloy 800/800H
X12NiCrSi 36 16	1.4864	330

GX40NiCrNb 35 25	1.4852	
GX40NiCrSi 35 25	1.4857	HP

Typical chemical composition %

C	Si	Mn	Cr	Ni	Nb	Fe
0,02	0,20	2,8	19,5	>67	2,5	<2,0

Typical mechanical properties

Yield strength Re [N/mm2]	>380
Tensile strength Rm [N/mm2]	>620
Elongation A5 [%]	>35
Impact energy Kv [J]	>90J (20°C) /
Shielding gases acc. to EN ISO 14175	I1 - Ar / I3 - Ar + >0-95% He /

Welding parameters and packing

ø	Length [mm]	Weight of packet [kg]
1,6	1000 /	5,0
2,0	1000 /	5,0
2,4	1000 /	5,0
3,2	1000 /	5,0
4,0	1000 /	5,0

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