NICROTIG 625

TIG Rods [GTAW]

Nickel alloys

CLASSIFICATION:	APPROVALS:	APPLICATION:
EN ISO 18274-A : S Ni 6625 (NiCr22Mo9Nb) DIN 1736 : SG NiCr21 Mo 9 Nb AWS A-5.14 : ER NiCrMo-3 W.Nr. : 2.4856	CE, TUV	Power generation industry Constructions & Engineering Petrochemical and chemical industry

- TIG rod for welding nickel-based alloys with a high molybdenum content (Alloy 625 or 825) and 6Mo steels.
- Resistant to thermal shocks, stainless, fully austenitic.
- Recommended for materials resistant to high temperatures, creep, for heat-resistant steels, cryogenic steels, for steels with limited weldability and for dissimilar joints.
- It can be used for manufacturing pressure vessels.
- High impact strength at very low temperatures - recommended for 9% Ni steel.
- High resistance to hot cracking.
- Carbon diffusion at high temperatures or during heat treatment is largely inhibited.
- Extremely resistant to corrosion, stress and pitting cracking.
- Low coefficient of thermal expansion.
- In the temperature range of 600-850°C, the weld metal becomes brittle - this range should be avoided.

Application

For dedicated materials, dissimilar connections, plating. Heat shields, kiln fittings (scrubbers), gas turbine engine hoses, combustion chamber linings, chemical plant fittings, seawater specialty applications. In the aerospace industry (exhaust devices, fuel lines, heat exchanger housings). Large number of applications in the nuclear industry (very low cobalt content). In general industry (tanks, heat exchangers, valves and fluid distribution systems, pipes). Waste disposal (reheaters), pulp and paper industry. Various fasteners, compensators, exhaust systems.

Base material

DIN	W.Nr.	ASTM
X2NiCrAlTi 32 20	1.4558	
NiCr20TiAl	2.4631	
NiCr23Mo16Al	2.4605	
NiCr22Mo6Cu	2.4618	
NiCr22Mo7Cu	2.4619	
NiCr20Ti	2.4630	
NiCr21Mo6Cu	2.4641	
NiCr20CuMo	2.4660	Alloy 20
NiCr20Ti	2.4951	Alloy 75
NiCr15Fe	2.4816	B168, Alloy 600
LC-NiCu15Fe	2.4817	
NiCr23Fe	2.4851	
NiCr22Mo9Nb	2.4856	B443, Alloy 625
NiCr21Mo	2.4858	B424, Alloy 825
X6CrNi 25 20	1.4951	
X8Ni 9	1.5662	A353-9%Ni stop
X12Ni 5	1.5680	
GX10Ni 5	1.5681	
X3CrNiN 18 10	1.6907	

X3CrNiMoN 18 4	1.6967	
X8NiCrAlTi 32 21	1.4959	
X10NiCrAlTi 32 20	1.4876	Alloy 800/800H
X1NiCrMoCuN 25 20 6	1.4529	
NiCr20TiAl	2.4952	Alloy 80A
X1NiCrMoCu 25 20 5	1.4539	
X2NiCrAlTi 32 20	1.4558	Alloy 800L
GX10NiCrNb 32 20	1.4859	
X1CrNiMoCuN 20 18 7	1.4547	254 SMo
12Ni9	1.5680	A333-5%Ni
GS10Ni19	1.5681	5%Ni stop
X10NiCrAlTi 32 20	1.4876	

Typical chemical composition %

C	Si	Mn	Cr	Ni	Mo	Nb	Fe
0,03	0,25	0,20	22,0	base	9,0	3,6	<1,5

Typical mechanical properties

Yield strength Re [N/mm2]	>420
Tensile strength Rm [N/mm2]	>760
Elongation A5 [%]	>30
Impact energy Kv [J]	>60J (-40°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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