NICROTIG C-276

TIG Rods [GTAW]

Nickel alloys

CLASSIFICATION:	APPROVALS:	APPLICATION:
EN ISO 18274-A : S Ni6276 DIN 1736 : EL NiMo16Cr16W AWS A-5.14 : ER NiCrMo-4 W.Nr. : 2.4886		Power generation industry Hardfacing and repairing Petrochemical and chemical industry

- Nickel based welding rods for joining materials of the Alloy C276 grade and nickel alloys of similar chemical composition.
- A chromium, nickel, and molybdenum-based filler metal with very low carbon content can also be used for joining different nickel-based alloys, stainless steels, and cladding low-alloy steels.
- The low carbon content minimizes carbide inclusions during welding, which maintains resistance to attack by intergranular corrosion in the HAZ.
- It is resistant to general corrosion, cracking, stress corrosion cracking, pitting and crevice corrosion in a wide range of challenging conditions.
- It has exceptional resistance to sulfuric acid and hydrochloric acid. It is resistant to many of the most severe media encountered in chemical processing, including reducing and oxidizing acids, strong oxidizing acids, inerts, solvents, formic acid and acetic acid, damp chlorine gas, hypochlorites and chlorine solutions. It has excellent resistance to phosphoric acid. It exhibits excellent resistance to seawater corrosion, especially in crevice conditions that cause corrosion attacks on other materials.
- The high molybdenum content imparts resistance to localized corrosion such as pitting.
- It is one of the best materials for the recovery and processing of acid natural gas, which contains hydrogen sulfide, carbon dioxide and chlorides.

Application

Application in the chemical and petrochemical industries. Most often used in cases where there are hot and contaminated mineral acids, solutions and organic acids and sea water.

Used in sulfuric acid coolers.

For pulp production and bleaching in the pulp and paper industry.

Installations and equipment for acid gas.

Preheaters and heaters for gas combustion and desulfurization.

Reactors for the production of acetic acid.

Production and processing of contaminated phosphoric acid.

Base material

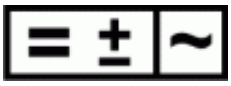
DIN	W.Nr.	ASTM
NiMo16Cr15W	2.4819	C-276
NiCr21Mo14W	2.4602	C-22
NiMo16Cr16Ti	2.4610	C-4

Typical chemical composition %

C	Si	Mn	Cr	Ni	Mo	Fe	W
0,006	0,04	0,50	16,0	58,0	16,0	5,8	3,6

Typical mechanical properties

Yield strength Re [N/mm2]	>410
Tensile strength Rm [N/mm2]	>720
Elongation A5 [%]	>27

Impact energy Kv [J]	>100J (20°C) /
Welding current	
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

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