NICROWELD 70/15

Electrodes MMA [SMAW]

Nickel alloys

CLASSIFICATION:	APPROVALS:	APPLICATION:
EN ISO 14172-A : E Ni 6182 (NiCr15FeMn) DIN 1736 : EL NiCr15FeMn AWS A-5.11 : E NiCrFe-3 W.Nr. : 2.4807		Power generation industry Hardfacing and repairing Metallurgy (Steelworks) Petrochemical and chemical industry

- Special electrode with a nickel core.
- For welding steels used in the low temperature industries and in the nuclear industry.
- Used in temperature conditions from -196°C to 600°C.
- Weld deposit resistant to scaling at temperatures up to 1200°C (in a sulfur-free atmosphere).
- Resistant to temperature shocks for austenitic steels, highly resistant to cracking and corrosion at high temperatures.
- The most universal electrode for welding steel and cast iron elements of unknown origin, with unknown chemical composition and hardness, with unknown heat treatment, having previous hardfacing layers, that have suffered fatigue cracks (if repair is possible and there is no other option)

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Application

Joining alloys type 600, 75
Dissimilar joints.
Dissimilar high temperature joints.
Cryogenic applications 3%, 5%Ni steels.
Heat resistant alloys.
Transition welds between creep resistant ferritic and austenitic steels such as 2Crmo and e.g. 316.

Base material

DIN	W.Nr.
X10NiCrAlTi32-20	1.4876
X20CrMoWV12-1	1.4935
X20CrMoV12-1	1.4922
X8CrNiMoVNb16-13	1.4988
X8CrNiMoNb16-16	1.4981
X8CrNiNb16-13	1.4550
Low-alloy steels, working at elevated temperatures, creep-resistant, working at low temperatures	
High-alloy Cr and CrNi steels, especially for joining dissimilar steels, nickel alloys and nickel-steel combinations	
Combining copper with stainless steel	

Typical chemical composition %

C	Si	Mn	Cr	Ni	Nb	Fe
0,04	0,40	7,0	16,0	base	1,8	8,0

Typical mechanical properties	
Yield strength Re [N/mm2]	>370
Tensile strength Rm [N/mm2]	650
Elongation A5 [%]	>35
Impact energy Kv [J]	>82J (-196°C) /
Hardness	180HB /
Coating type	basic
Welding current	
Welding positions	
Redrying	200°C / 1h
Additional description	The microstructure of high-nickel austenite with certain carbides. The preheating temperature and interpass temperature influence the properties of the base material.

Welding parameters and packing

ø	Length [mm]	Welding current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	300 /	60-90	1,0	6,0
3,2	350 /	80-110	1,0	6,0
4,0	350 /	110-150	1,0	6,0
5,0	450 /	130-180	1,5	9,0

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