

PRODUCT DATA SHEET

Afrox Filmax Ni-I Afrox TIG Ni-I



Afrox Ni-I solid wires for TIG and MIG welding are designed to give a low carbon pure nickel deposit with the addition of titanium for refinement and de-oxidation. They are used for joining pure nickel to itself, for buffer layers, and for cladding joint faces and flanges. The solid wire is also useful for welding cast iron to give a soft low strength deposit. Afrox Filmax Ni-I is also excellent for metal spraying.

Applications

Applications include tanks and vessels, process pipework and heat exchangers, in chemical plant for salt production, chlorination and evaporation of caustic soda. Also used for handling corrosive alkalis and halides. Repair and rebuilding of standard grades of grey cast irons and malleable cast irons.

Materials to be Welded

ASTM-ASME BS DIN Proprietary alloys
UNS N02200 NAI I 2.4066 Nickel 200 and 201 (Special Metals)
UNS N02201 NAI2 2.4068 Nickel 99.6 and 99.2 (VDM) 2.4061

Classifications

AWS	A5.15	ENi-CI
EN	18274	Ni 2061 (NiTi3)

Typical Chemical Analysis (All weld metal)

% Carbon	0,15 max	% Nickel	93,0 min
% Manganese	1,0 max	% Titanium	2,0 - 3,5 max
% Silicon	0,75 max	% Copper	0,25 max
% Sulphur	0,015 max	% Iron	1,0 max
% Phosphorous	0,03 max	% Aluminium	1,5 max

Typical Mechanical Properties (All weld metal in the as welded condition)

0,2% Proof Stress	355 MPa
Tensile Strength	585 MPa
% Elongation on 4d	35
% Elongation on 5d	31
% Reduction of Area	65
Hardness cap/mid	155/185 HV

Packing Data (DC+ AC 70 OCV min)

MIG			TIG			
Diameter (mm)	Pack Mass (kg)	Item Number	Diameter (mm)	Pack Mass (kg)	Consumable Length (mm)	Item Number
1,0	15,0	W077672	1,6	5,0	1 000	W077667
1,2	15,0	W077673	2,0	5,0	1 000	W077668
1,6	15,0	W077674	2,4	5,0	1 000	W077669

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