

NIFIL 625 is an S Ni 6625 / ER NiCrMo-3 type solid MIG welding wire, supplied precision layer wound, depositing Ni-22Cr9Mo3.5Nb weld metal. Suitable for use with inert shielding gases.

NIFIL 625 is used for welding of highly corrosion-resistant Cr-Mo-Nickel base alloys such as alloy 625, alloy 825 and similar alloys. Also suitable for molybdenum alloyed corrosion-resistant steels with e.g. 7% Mo as X1NiCrMoCuN25-20-7 and cold-tough nickel steels. In sulphur-free atmospheres the weld metal is non-scaling <1200°C, in sulphurous atmospheres the weld metal can be used <500°C. Thermal expansion coefficient between austenitic and ferritic steels, therefore this wire electrode is also suited for joining ferritic to austenitic steels (dissimilar) with operating temperatures or postweld heat treatment >300°C. Also used for the cladding of steels.

NIFIL 625 is very resistant to stress corrosion cracking and pitting corrosion in a range of media including phosphoric acid, organic acids, sea water and polluting environments. Cryogenic toughness down to -196°C. Even at higher temperatures only limited carbon diffusion in the weld metal thus avoiding crack susceptible carbides in the weld interface of dissimilar joints.

Classification

EN	18274: S Ni 6625 (NiCr22Mo9Nb)
AWS	A5.14: ER NiCrMo-3

Chemical analysis (Typical values in %)

C	Mn	Si	P	S	Cr	Ni	Mo	Nb	Fe	Ti
0.025	0.4	0.3	≤ 0.020	≤ 0.015	21	Rest	9	3.5	0.3	0.3

All-weld metal Mechanical Properties

Heat Treatment	Yield Strength (MPa)	Tensile Strength (MPa)	Elongation A5 (%)	Impact Energy ISO - V (J)	
				+20 °C	-196 °C
As Welded	≥ 460	≥ 720	≥ 30	≥ 100	≥ 40

Gas test: ArHeH+C 30/2/0.12

Shielding Gas - EN ISO 14175 : I1, I3

Materials

UNS N06625; UNS N08825
2.4856; 2.4839

Storage

Keep dry and avoid condensation

Current condition and welding position

DC+



MIG/MAG solid wires-TIG rods Nickel and Copper alloys

Packaging data

Packaging Type	BS300	S200
Diam(mm) / weight(kg)	15	5
0.8	●	●
1.0	●	●
1.2	●	●
1.6	●	●