

Wire Welding alloys



IMPHY 625 W is a low-carbon / low-iron Nickel-Chromium-Molybdenum-Niobium alloy which shows:

- Outstanding corrosion resistance in various media.
- Especial resistance to pitting and crevice corrosion
- Excellent fatigue strength and stress-corrosion cracking resistance to chloride ions.
- Outstanding resistance to intergranular corrosion due to sensitization
- Good resistance to oxidation and scaling at high temperature

Typical analysis

	C	Mn	Fe	P	S	Si	Cu	Ni	Al	Ti	Cr	Nb-Ta	Mo
AWS	0.1	0.5	5	<0.02	<0.015	0.5	0.5	58 mini	0.4	0.4	20	3.15	8
Standard Aperam	0.1	0.5	0.5	<0.02	<0.015	0.5	0.5	58 mini	0.4	0.4	23	4.15	10

Specifications

AWS A5.14 – ERNiCrMo-3 ; UNS N06625 ; Werkstoff Nr 2.4831 ; BS 2901 Part 5 – NA43

Mechanical properties

Hot rolled and solution annealed	Delivery condition at 20°C	Tensile strength (MPa)	Elongation %
		800 – 850	50 - 60

Welding

IMPHY 625 W is used for welding of Alloy 625, Alloy 825, Alloy 926, various corrosion-resistant alloys, and molybdenum containing stainless steels.

IMPHY 625 W is also used for dissimilar welding of corrosion-resistant alloys, carbon steels, low-alloy steels, stainless steels and for surfacing of steels.

The weld metal has a high strength over a large temperature range

Typical applications

Cladding of water wall sections and super heaters tubes in waste incineration plants by overlay welding.

Welding of plates, sheets and tubes in the chemical process industry, in marine engineering and in pollution control equipment.

The data enclosed in this document are only given as indicative values and correspond to our standard product. Different specific requirements are subject to discussion and formal approval by Aperam Alloys Imphy. For further information or special request, please contact us.

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