

Wire

Welding alloys



IMPHY 82 is a low-carbon / low-iron Nickel-Chromium-Niobium alloy which shows:

- High strength and creep rupture strength at elevated temperatures.
- Good corrosion resistance.

Typical analysis

C	Mn	Fe	P	S	Si	Cu	Ni	Ti	Cr	Nb-Ta
0.1	2.5	3	<0.03	<0.015	0.5	0.5	67 mini	0.75	18	2
	3.5								22	3

Specifications

AWS A5.14 – ERNiCr-3 ; UNS N06082 ; Werkstoff Nr 2.4806 ; BS 2901 Part 5 – NA35

Mechanical properties

Hot rolled and solution annealed	Delivery condition at 20°C	Tensile strength (MPa)	Elongation %	Red. of area %
		750	40	60

Welding

IMPHY 82 is used for welding of Alloy 600, Alloy 601, Alloy 690, Alloy 800 and Alloys 330.

IMPHY 82 is also used joining corrosion-resistant alloys to Nickel, Nickel-Copper Alloys, stainless steels and carbon steels, and for surfacing of steels.

The weld metal has a high strength and creep-rupture resistance at elevated temperatures as well as good corrosion resistance.

Typical applications

IMPHY 82 is mainly used for dissimilar welding when long term service at elevated temperature is required, such as in furnace equipment, petrochemical and power generation plants..

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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