High performance

IMPHY 686

IIMPHY 686 is an austenitic Alloy for high corrosion resistance which allows:

- Outstanding resistance to a wide range of corrosive media under oxidizing and reducing conditions by the association of its high Chromium level with Molybdenum and Tungsten.
- Excellent resistance to pitting and crevice corrosion, to stress corrosion cracking in chloride environment, and to untergranular attack in oxidizing environment..

Chemical composition

C	Mn	Fe	P	S	Si	Cu	Ni	Al	Ti	Cr	Mo	W
									0.02	19	15	3
0.01	0.75	5	4.5	0.02	0.08	0.5	Bal	0.5	0.25	23	17	4.4

International standards

AWS A5.14 – ERNiCrMo-14 - UNS N06686

Typical applications

Its exceptional behaviour in a wide range of corrosive media makes IMPHY 686 especially recommended for chemical process industry (chloride environment), in the pulp and paper industry, in flue gas desulphurisation equipment, pollution control equipment for environmental protection, waste management and marine application.

Mechanical properties

		Tensile strength (MPa)	Elongation %
Hot rolled and solution annealed	Delivery condition at 20°C	850 maxi	50 mini

Welding

IMPHY 686 is used for welding of duplex, super duplex and super austenitic stainless steels, IMPHY 22, IMPHY 625, IMPHY 276.

IMPHY 686 is useful for the surfacing of wide range of steels in particularly aggressive environment.

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

Available Forms

IMPHY 686 is delivered in wire.

www.aperam.com
nickel.alloys@aperam.com
YouTube

Aperam Alloys Imphy
B.P. 1
Avenue Jean Jaurès
F- 58160 Imphy

Aperam Alloys Imphy