BIBUS METALS

lebronze alloys

Technical datasheet

Niclal 400 / CuNiFe

A nickel-copper alloy with good strength and excellent corrosion resistance to sea water and chlor alkali corrosion. It is used widely in marine engineering and chemical processing equipment. It is suitable for both cold working and deep drawing.

Available products

Product form
Sheet and strip
Rod and wire
Profile wire

Major specifications

ASTM B164	UNS N04400
Wr.N 2.4360	DIN 17743

Chemical composition (%)

Ni	**Fe**	**Cu**
65	2	Balance

Physical properties

Modulus of elasticity, longitudinal, GPa	179
Coefficient of expansion 20-300°C (x10^{-6}/°C)	13.9
Thermal conductivity at 20°C, W/m.K	22
Electrical resistivity at 20°C, µΩ.cm	54
Electrical conductivity %IACS	7.5

Mechanical properties

	Temper	Thickness (mm)	Grain size (ASTM)	Vickers Hardness	Tensile strength (MPa)	Yield Strength (MPa)	Elongation (%)
Strip in coil (standard)	Annealed	0.2 to 2.0	7 to 9	<140	<580	>200	>35
		>2.0 to 3.5	5 to 7	<140	<540	>180	>35
	H11	2.0 to 3.5		160-200	550-610	>300	>25
	H12	2.0 to 3.5		180-230	600-660	>500	>12
	H13	2.0 to 3.5		200-250	650-720	>560	>7
	H14	2.0 to 3.5		200-270	700-820	>650	>2
	H15	<0.2		>240	NA	NA	NA
		2.0 to 3.5		>250	>800	>700	1
Sheet	Annealed	<1.27			485-585	195 min	35 min
		1.27 - <6.35					
	H14	All thickness			>690	>620	2 min

All information is subject to change without notice. The properties correspond to the material in the heading. They may vary for other specifications. Please contact us for more details.

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Applications

Sprinkler
Fasteners
Chlorine valves
Oil and gas gaskets
Heat exchangers