



# 1.4112/AISI 440B

**CONFIDENTIAL**

## CHEMICAL COMPOSITION [% weight]

C	Si	Mn	P	S	Cr	Ni	Cu	Altri
0.85-0.95	1.00 max	1.00 max	0.04 max	0.15 max	17-19	-	-	V: 0.07-0.12

## CHARACTERISTICS AND AREAS OF APPLICATION

1.4112 martensitic stainless steel, special grade, can be heat treated to achieve its exceptional hardness. Some typical applications are surgical instruments, some pump and motor components as well as ball and roller bearings.

## INDICATIVE MECHANICAL PROPERTIES

[ACCORDING TO EN10088-3 AT HARDENED STATE - ROOM TEMPERATURE]

Metallurgical condition	Rm [N/mm <sup>2</sup> ]	Rp 0.2 [N/mm <sup>2</sup> ]	A5 [%] min	Indic. hardness [HB] max
Annealed	840 max	-	-	265
Hardened	-	-	-	HRC: 54 Min

## WELDABILITY

It must not be welded due to the possibility of hardening crack formation. However, since its high hardenability, if welding requires it, it should be preheated to 150-200 °C, instantly annealed for 6-8 hours at 700-750 °C and finally air-cooled.

## CORROSION RESISTANCE

It is good in mildly-corrosive environments and shows its highest corrosion resistance in the hardened and relieved state.

## HEAT TREATMENT

- ANNEALING** > 780-840 °C / air cooling  
**HARDENING** > 1000-1050 °C / air cooling

[\*] The information on this sheet is of a general nature and reflects the contents of the technical regulations. For any specific request or clarification, please contact Eure inox Quality Department.