

Bar

Corrosion application



It is a Ni Cu alloy with a high strength and toughness over a wide temperature range and excellent resistance to many corrosive environments. Phy400 is widely used in many fields, especially marine and chemical processing.

1. Chemical content

UNS N04400
Wr 2.4360

Ni	Cu	Fe	C
> 63	28 - 34	< 2,5	< 0,3

2. Applications

- Valves and pumps
- Marine fixtures and fasteners
- Chemical processing equipment
- Process vessels and piping
- Boiler feedwater heaters and other heat exchangers

Standards relative to these applications :
ASTM B164 or B564
AMS 4675

3. Shapes – Tolerances – Destinations

Round bars

Section	Ø 4 to Ø 20mm	Ø 20 to Ø 300mm
Process	Cold bars	Forged or Hot-rolled bars
Surface Conditions	Raw, rectified, chamfrened	Peeled , ground, rectified, linished, raw
Length	3 to 6m	3 to 6m
Weight	min 400Kg	min 1000Kg
Packaging	Wooden box or narrow strapping	Secured package
Tolerances	Drawn straightened and rectified h9, Ra < 1,2µm	
Ground		+/- 3mm
Peeled (Ra < 6,3µm)		- 0 / +3mm for forged bars -0/+0,8 for diameter < 80mm by hot-rolling Φ 81mm < -0/+1,2mm < Φ 160mm by hot-rolling
Straightness	< 1mm/m	< 4,2mm/m
Uses	Bars for machining or hot-transformation	Bars for machining or hot-transformation
Customer processes used in manufacturing finished parts	Machining, free-cutting,...	Forging, stamping, drop forging, ring becking, drawing, ring rolling, upsetting, machining,...

3. Shapes – Tolerances – Destinations

Square bars	
Section	80x80mm to 265x265mm
Process	Bloomed (up to 120x120) or forged
Surface Conditions	Ground
Length	3 to 6m
Weight	min 1000Kg
Tolerances	+/- 3mm
Straightness	10mm/m
Uses	Bars for hot-transformation only
Customer processes used in manufacturing finished parts	Forging, stamping, drop forging, ring becking, ring rolling,...

Others shapes : Please consult us.

4. Certificate

Certificate 10204-3.1
Chemical composition according to relevant standards.

Bars for hot-transformation :
Ultrasonic test according to standard EN10308

Bars for others applications :
Condition and tests according to specified standard

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