

# ALLOYS WITH SPECIFIC PHYSICAL PROPERTIES

## Application Segments

Engineering

## Available Product Variants

Long Products\*

Plates

\* Presented data refer exclusively to long products. Please observe the detailed explanations at the end of the data sheet (pdf).

## Product Description

BÖHLER P802SA is an iron-36% nickel alloy with low thermal expansion for the manufacture of moulds for aircraft construction and for the electronics industry, for measuring instruments (e.g. rulers, scales), temperature measuring instruments and temperature-dependent controls, thermostats, thermobimetals whose individual layers should have the greatest possible difference in the coefficient of thermal expansion, compensation elements, aperture masks for picture tubes, glass-metal transitions in which the expansion of the alloy must correspond to that of glass and ceramic materials, membrane tanks, chip base plates, laser housings, waveguides and seismographic measuring instruments.

The minimum coefficient of thermal expansion of BÖHLER P802SA is in the range of 0 to 40°C. Above the break point at about 200°C, the coefficient of expansion increases sharply and reaches the values usual for austenitic materials at temperatures above 300°C. Good low-temperature properties

## Process Melting

Airmelted

## Applications

> Electronic industry

> Mechanical Engineering

## Technical data

Material designation		Standards	
Ni 36	Market grade	SEW 385	Others
1.3912	SEL		
Ni36	EN		

## Chemical composition (wt. %)

C	Si	Mn	Ni
max. 0.10	max. 0.50	max. 0.50	35.0 to 37.0

Refers to SEW 385 - 1.3912

## Delivery condition

### Annealed

Tensile Strength (MPa)	440 to 640
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### Round Bars and Wire Rod (if any)

Diameter* mm		
ROLLED		
5.00	-	13.50
15.00	-	125.00
FORGED		
125.10	-	500.00

\* Diameter 5.00 - 13.50 mm available as Wire Rod.

Diameter 15.0 - 125 mm round bars.

More information regarding MOQ, lengths and tolerances upon request.

If other available product variants are listed in addition to long products, please note that these may differ in terms of melting process, technical data, delivery and surface condition as well as available product dimensions. For mandatory technical specifications, other requirements and dimensions, please contact our regional voestalpine BÖHLER sales companies. The data contained in this brochure is merely for general information and therefore shall not be binding on the company. We may be bound only through a contract explicitly stipulating such data as binding. Measurement data are laboratory values and can deviate from practical analyses. The manufacture of our products does not involve the use of substances detrimental to health or to the ozone layer.