

# NI-BASE ALLOYS

## Application Segments

Oil &amp; Gas / CPI

## Available Product Variants

Long Products\*

Semi-Finished Products / Billet

Plates

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

## Product Description

BÖHLER L022 belongs to the group of highly corrosion-resistant nickel-chromium-molybdenum-tungsten alloys with extremely low carbon and silicon contents. Good resistance to wet media, e.g. sulphuric acid, nitric acid, acid mixtures of sulphuric acid and oxidising acids with chloride ions. Recommended for use in the presence of strong oxidising agents such as iron(III) and copper(II) chlorides, chlorine gas, formic acid, acetic acid, seawater and other salt solutions. High resistance to crevice, pitting and stress corrosion cracking at elevated temperatures under oxidising and reducing conditions. Used in environmental engineering, e.g. in agitators, heat exchangers and spray systems in flue gas cleaning plants and in waste water treatment plants, evaporation plants in chemical process engineering, in chlorine bleaching plants and plants for the production of chlorine gas and hydrogen chloride, e.g. butterfly valves, gate valves, pipelines and centrifuges. Suitable for pressurised containers with wall temperatures from -196°C to 400°C. Due to its good thermal stability, BÖHLER L022 can generally be used in the welded condition without subsequent heat treatment.

## Process Melting

VIM + ESR or Airmelted + ESR

## Applications

- Components for Chemical plants (incl. LNG, FGD, Urea, LDPE, etc.)
- Components for the recycling industry
- Components for food processing and animal feed
- CPI (incl. LNG, Urea)
- Oil & Gas / CPI
- Other Oil and Gas + CPI components
- Tubular Products, Flanges, Fittings
- Valves and Actuators
- Heat Exchanger
- Paper and Pulp Industry / Printing
- Oil & Gas, CPI & Renewables

## Technical data

Material designation		Standards	
Alloy C22	Market grade	B564	ASTM
2.4602	SEL	B574	
NiCr21Mo14W	EN	VdTÜV WB479	Others
N06022	UNS	NACE MR0103 / ISO 17945	
		NACE MR0175 / ISO 15156	

## Chemical composition (wt. %)

C	Si	Mn	P	S	Cr	Mo	Ni	V	W	Co	Fe
max. 0.010	max. 0.08	max. 0.5	max. 0.025	max. 0.010	20.0 to 22.5	12.5 to 14.5	REM	max. 0.35	2.5 to 3.5	max. 2.5	2.0 to 6.0

Refers to VdTÜV WB 479

## Delivery condition

### Solution Annealed + Quenched

Tensile Strength (MPa)	690 to 950
Yield Strength (MPa)	min. 310

### Round Bars and Wire Rod (if any)

Diameter*		
mm		
ROLLED		
5.00	-	13.50
5.00	-	101.60
FORGED		
101.70	-	355.60

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

Diameter 5.00 - 101.6 mm round bars.

Diameter from 5.0 to 13.5 mm available as Wire Rod. 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.

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