

CORROSION-RESISTANT STEELS - FERRITIC-AUSTENITIC (DUPLEX) STEELS

Application Segments

Oil & 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

Bohler A913 (UNS S32750) is the most widely used super duplex grade on the market and is a 25%Cr ferritic-austenitic stainless steel with PREN min 41.

The steel offers highest corrosion resistance and good strength properties and is especially suitable for use in aggressive environments containing chlorides.

Good weldability, heat treatment after welding is not required.

Excellent resistance to general corrosion, stress corrosion cracking, vibration cracking, pitting and crevice corrosion as well as erosion corrosion.

Max. operating temperature for long-term use: 280°C (short-term exceeding up to 300°C permissible).

Required surface finish: pickled or machined.

Components exposed to seawater such as heat exchangers, feed or injection pumps, propeller shafts, highly stressed parts in chemical and waste water plants and for oil and gas production (e.g. manifolds), separators, turbine and fan blades, low-pressure compressor components.

Process Melting

Airmelted

Applications

- > Components for Chemical plants (incl. LNG, FGD, Urea, LDPE, etc.)
- > Drilling tools and components
- > Other Oil and Gas + CPI components
- > Valves and Actuators
- > Wellhead, X-mas trees and Manifolds (incl. Tubing hangers), BOPs
- > Pumping
- > Components for food processing and animal feed
- > Fasteners, Bolts, Nuts
- > Pumps and High Pressure Components
- > Well Completion Tools
- > Chemical industry - general
- > CPI (incl. LNG, Urea)
- > Flowlines & Connectors
- > Tubular Products, Flanges, Fittings
- > Well Logging Tools
- > Wear Applications

Technical data

| Material designation | | Standards | |
|----------------------|-----|------------|--------|
| 1.4410 | SEL | 10088-3 | EN ISO |
| X2CrNiMoN25-7-4 | EN | A182/A182M | ASTM |
| S32750 | UNS | A276/A276M | |
| | | A479/A479M | |
| | | MDS D57 | NORSOK |

Chemical composition (wt. %)

| C | Si | Mn | P | S | Cr | Mo | Ni | Cu | N |
|------------|-----------|-----------|------------|------------|--------------|------------|------------|-----------|--------------|
| max. 0.030 | max. 0.80 | max. 1.20 | max. 0.035 | max. 0.020 | 24.0 to 26.0 | 3.0 to 5.0 | 6.0 to 8.0 | max. 0.50 | 0.24 to 0.32 |

Refers to NORSOK M630 MDS D57 - UNS 32750 | PREN = % Cr + 3.3 x % Mo + 16 x % N min 41.

Delivery condition

| Solution Annealed + Quenched | |
|------------------------------|---|
| Hardness (HB) | max. 310 hot finished or cold finished / up to 50.8 mm Diameter |
| Tensile Strength (MPa) | min. 800 hot finished or cold finished / up to 50.8 mm Diameter |
| Yield Strength (MPa) | min. 550 hot finished or cold finished / up to 50.8 mm Diameter |

| Solution Annealed + Quenched | |
|------------------------------|--|
| Hardness (HB) | max. 310 hot finished or cold finished / over 50.8 mm Diameter |
| Tensile Strength (MPa) | min. 760 hot finished or cold finished / over 50.8 mm Diameter |
| Yield Strength (MPa) | min. 515 hot finished or cold finished / over 50.8 mm Diameter |

Round Bars and Wire Rod (if any)

| Diameter* mm | | |
|-----------------|---|--------|
| ROLLED | | |
| 5.00 | - | 13.50 |
| 12.50 | - | 130.00 |
| FORGED | | |
| 130.10 | - | 200.00 |

* Diameter 5.00 - 13.50 mm available as Wire Rod.

Diameter 12.5 - 130 mm round bars.

More information regarding MOQ, lengths and tolerances upon request. Flat bars on 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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