

# CREEP RESISTANT STEELS

## Application Segments

Aerospace

## 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 T552 is a premium aircraft-quality corrosion-resistant chromium-nickel-molybdenum steel in the form of bars, wire, forgings and stock for forging.

These products have been used typically for parts such as compressor wheels and structural members requiring corrosion resistance and high strength up to 800°F (427 °C), but usage is not limited to such applications.

## Process Melting

Airmelted + ESR

## Applications

&gt; Other Aerospace Components

&gt; Structural parts (Aerospace)

## Technical data

| Material designation |              | Standards |     |
|----------------------|--------------|-----------|-----|
| Jethete              | Market grade | 5719      | AMS |
| 1.4939               | SEL          |           |     |
| X12CrNiMo12          | EN           |           |     |
| S64152               | UNS          |           |     |

## Chemical composition (wt. %)

| C            | Si        | Mn           | P          | S          | Cr             | Mo           | Ni           | V            | Cu        | N            |
|--------------|-----------|--------------|------------|------------|----------------|--------------|--------------|--------------|-----------|--------------|
| 0.08 to 0.15 | max. 0.35 | 0.50 to 0.90 | max. 0.025 | max. 0.025 | 11.00 to 12.50 | 1.50 to 2.00 | 2.00 to 3.00 | 0.25 to 0.40 | max. 0.50 | 0.01 to 0.05 |

Related to AMS 5719 Type 2

## Delivery condition

| Annealed               |                                                 |
|------------------------|-------------------------------------------------|
| Hardness (HB)          | max. 311   bars, hot or cold finished, forgings |
| Tensile Strength (MPa) | max. 1,069   for wire products                  |

Round Bars and Wire Rod (if any)

| Diameter<br>mm |   |        | MOQ ex mill<br>kg |  | Length<br>m |   |      | Tolerance |  |
|----------------|---|--------|-------------------|--|-------------|---|------|-----------|--|
| ROLLED         |   |        |                   |  |             |   |      |           |  |
| 12.50          | - | 55.00  | 850               |  | 3.00        | - | 4.00 | IT h/k 11 |  |
| 55.01          | - | 120.00 | 2,650             |  | 3.00        | - | 4.00 | IT h/k 11 |  |
| 120.01         | - | 140.00 | 2,650             |  | 3.00        | - | 5.00 | IT h/k 14 |  |
| FORGED         |   |        |                   |  |             |   |      |           |  |
| 140.01         | - | 203.20 | 2,400             |  | 2.00        | - | 5.00 | IT h/k 14 |  |
| 203.21         | - | 304.80 | 3,800             |  | 2.00        | - | 5.00 | IT h/k 14 |  |
| 304.81         | - | 457.20 | 8,000             |  | 2.00        | - | 5.00 | IT h/k 14 |  |

Flat Bars

| Width<br>mm |   |        | Thickness<br>mm |   |        | MOQ ex mill<br>kg | Length<br>m |   |      | Tolerance |
|-------------|---|--------|-----------------|---|--------|-------------------|-------------|---|------|-----------|
| ROLLED      |   |        |                 |   |        |                   |             |   |      |           |
| 15.00       | - | 121.00 | 10.00           | - | 86.00  | 950               | 3.00        | - | 4.00 | LN 1017   |
| 120.00      | - | 150.00 | 22.00           | - | 112.00 | 2,700             | 3.00        | - | 4.00 | LN 1017   |
| 150.00      | - | 275.00 | 18.00           | - | 107.00 | 2,700             | 3.00        | - | 4.00 | LN 1017   |
| 275.00      | - | 330.00 | 15.00           | - | 107.00 | 2,700             | 3.00        | - | 4.00 | LN 1017   |

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.

**voestalpine BÖHLER Edelmetall GmbH & Co KG**

Mariazeller Straße 25

8605 Kapfenberg, AT

T. +43/50304/20-0

E. [info@bohler-edelstahl.at](mailto:info@bohler-edelstahl.at)

<https://www.voestalpine.com/bohler-edelstahl/de/>

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ONE STEP AHEAD.