

# ENGINEERING STEELS - CASE HARDENING STEELS

## Application Segments

- Aerospace
- Automotive

## Available Product Variants

- Long Products\*

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

## Product Description

BÖHLER E108 is a 4%-Nickel-chromium-molybdenum steel for applications requiring high core strength, high toughness and for bigger dimensions. Hardness in carburized layer above 58 HRC. Service temperature max. 200°C. Non corrosion resistant.

## Process Melting

- Airmelted

## Applications

- > Structural parts (Aerospace)
- > Other Aerospace Components
- > Motorsport industry

## Technical data

Material designation		Standards	
S82	Market grade	S82	BS

## Chemical composition (wt. %)

C	Si	Mn	P	S	Cr	Mo	Ni
0.14 to 0.18	0.15 to 0.40	0.25 to 0.55	max. 0.025	max. 0.020	1.0 to 1.4	0.20 to 0.30	3.8 to 4.3

Related to BS S82

Delivery condition

Annealed

Hardness (HB)	max. 277   S82D, Bright bars for machining
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Normalized, Tempered

Hardness (HB)	max. 277   S82B, bars for machining.
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Normalized, Tempered

Hardness (HB)	max. 277   S82A, forging stock and bars for subsequent working
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Round Bars and Wire Rod (if any)

Diameter mm			MOQ ex mill kg	Length m			Tolerance
<b>ROLLED</b>							
5.01	-	12.49	800	3.00	-	4.00	IT h/k 11
12.50	-	55.00	800	3.00	-	4.00	IT h/k 11
55.01	-	69.00	1,200	3.00	-	4.00	IT h/k 11
69.01	-	72.00	1,000	3.00	-	4.00	IT h/k 11
72.01	-	82.00	1,150	3.00	-	4.00	IT h/k 11
82.01	-	120.00	1,400	3.00	-	4.00	IT h/k 11
120.01	-	140.00	1,400	3.00	-	5.00	IT h/k 14
<b>FORGED</b>							
140.01	-	203.20	1,400	2.00	-	5.00	IT h/k 14

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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