

# Ribbed Reinforcing Steels in Bars



LIBERTY Ostrava  
[www.libertysteelgroup.com](http://www.libertysteelgroup.com)



MEMBER OF



**LIBERTY Ostrava is an integrated steel business with an annual production capacity of approximately 3.6 million tonnes serving construction, machinery and oil & gas industries.**

The company is a domestic leader in the manufacture of road barriers and tubes. In addition to the Czech market, it supplies its products to more than 40 countries around the world. Together with its subsidiaries in Ostrava, the company has 6,000 employees. The company

manufactures its products with a minimum possible environmental footprint. It is part of LIBERTY Steel Group, which is part of GFG Alliance, a collection of global businesses and investments owned by Sanjeev Gupta and his family. The Alliance is structured into three core industrial pillars: LIBERTY Steel Group, ALVANCE Aluminium Group and SIMEC Energy Group. Headquartered in London, GFG Alliance employs 35,000 people, across 10 countries and has revenues of USD \$20bn.

**Liberty Ostrava Facilities**

- 3 coke oven batteries
- 5 sinter belts
- 3 blast furnaces (2 operational)
- 4 tandem furnaces
- 3 continuous casting machines
- 6 rolling mills (incl. hot-strip mill, big and small Stiefel pipe mills, wire rod mill, heavy section mill, fine & medium section mill)
- Mine support and road barrier lines

**Main Products**

Hot rolled coils, sheets and strips, road barriers, merchant bars and sections, wire rods, tubular steels, mine supports, engineering products, transformer cores, threaded bars, rebars, hot rolled spring steel flat bars

**Key Markets**

Construction, machinery and automotive

**Certification**

- ISO 9001
- ISO 14001
- OHSAS 18001
- ISO 50001



Actual certificates are available on the link: <https://www.libertysteelgroup.com/cz/products/product-certification/?lang=en>

# Ribbed Reinforcing Steels in Bars

Ribbed reinforcement steel bars are supplied in dimensions according with following standards.

## Dimensions

### DIN 488-2:2009 (DE), ČSN 42 0139:2011 (CZ), SK TP – 16/0013 (SK), Grade B500B

Dimensions	10	12	14	16	18*	20	22*	25	28	32
kg/m	0.617	0.888	1.21	1.58	2.00	2.47	2.98	3.85	4.83	6.31
mm <sup>2</sup>	78.5	113	154	201	254	314	380	491	616	804

\*Dimensions and tolerances only according to ČSN 42 0139:2011

### ÖNORM B4707:2017 (AT), Grade B550B

Dimensions	10	12	14	16	20	25	26	28	30
kg/m	0.617	0.888	1.21	1.58	2.47	3.85	4.17	4.83	5.55
mm <sup>2</sup>	78.5	113	154	201	314	491	531	616	707

### BS 4449:2005+A3:2016 (UK), Grade B500C

Dimensions	10	12	16	20	25	32	40	50
kg/m	0.617	0.888	1.58	2.47	3.85	6.31	9.86	15.4
mm <sup>2</sup>	78.5	113	201	314	491	804	1257	1963

### PN-H-93220:2018 (PL) Grade B500SP

Dimensions	10	12	14	16	20	25	28	32	40
kg/m	0.617	0.888	1.21	1.58	2.47	3.85	4.83	6.31	9.86
mm <sup>2</sup>	78.5	113	154	201	314	491	616	804	1257

### ST 009:2011 (RO) Grade B500C (acc. to technical approval AT 003-01/153-2021)

Dimensions	10	12	14	16	18	20	22	25	28	32
kg/m	0.617	0.888	1.21	1.58	1.99	2.47	2.98	3.85	4.83	6.31
mm <sup>2</sup>	78.5	113	154	201	254	314	380	491	616	804

## Grades and characteristic tensile properties

Standard	Steel Grade	R <sub>e</sub> [MPa]	React / R <sub>e nom</sub> (max)	R <sub>m</sub> /R <sub>e</sub> (min)	A <sub>gt</sub> [%] (min)	CEV (max)
DIN 488-1	B500B	500	1.30	1.08	5.0	0.50
ČSN 42 0139	B500B	500	1.30	1.08	5.0	0.50
IBDiM-KOT-2018/0110	B500B	500-650	-	1.08	5.0	0.50
ÖNORM B4707	B550B	550	1.30	1.08	5.0	0.50
BS 4449	B500C	500-650	-	1.15 - 1.35	7.5	0.50
PN-H-93220	B500SP	500-625	-	1.15 - 1.35	8.0	0.50
ST 009:2011	B500C	500	-	1.15 - 1.35	7.5	0.50

## Weldability and heat chemical analysis

Standard	Steel Grade	C (max) [%]	S (max) [%]	P (max) [%]	N (max) [%]	Cu (max) [%]	CEV (max) [%]
DIN 488-1	B500B	0.22	0.050	0.050	0.012	0.60	0.50*
ČSN 42 0139	B500B	0.22	0.050	0.050	0.012	0.60	0.50*
IBDiM-KOT-2018/0110**	B500B	0.22	0.050	0.050	0.012	0.60	0.50
ÖNORM B4707	B550B	0.22	0.050	0.050	0.012	0.80	0.50
BS 4449	B500C	0.22	0.050	0.050	0.012	0.80	0.50
PN-H-93220	B500SP	0.22	0.050	0.050	0.012	0.80	0.50
ST 009:2011	B500C	0.22	0.050	0.050	0.012	0.80	0.50

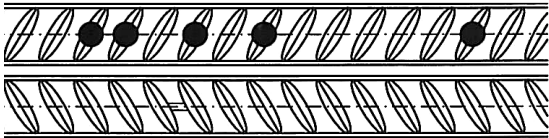
\*max 0.47% D > 28 mm

$$CEV = \frac{Mn}{6} + \frac{Cr + Mo + V}{5} + \frac{Cu + Ni}{15}$$

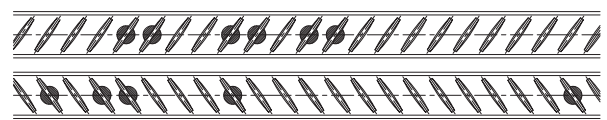
\*\* according to IBDiM-KOT-2018/0110 content of Mn max. 1.60% and Si max. 0.60%

## Identification mark of Liberty Ostrava

### B500B



### B550B



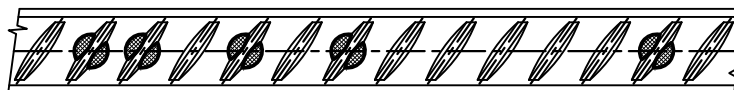
### B500C



### B500SP



### B500C (RO)



### Length

Minimum 6.0m  
 Maximum 16.1m  
 Standard length 6.0m and 12.0m (-0/+100 mm)  
 Other lengths upon agreement

### Packing, bundling

Weight of bundles: 2.0t to 5.0t  
 Marking: label with name of producer, dimension, steel grade, heat number, length, weight

# Environmental Product Declaration



EPD is available on the link:

<https://www.libertysteelgroup.com/cz/products/epd/?lang=en>

## Contact with the mill

### Europe

**Liberty Commercial Czech Republic k.s.**  
Vratimovská 689/117, 719 00 Ostrava (CZ)

ID: 05433266

VAT: CZ05433266

E: [sales.ostrava@libertysteelgroup.com](mailto:sales.ostrava@libertysteelgroup.com)

T: +420 595 682 637

[www.libertyostrava.cz](http://www.libertyostrava.cz)

### Germany

**Liberty Commercial Germany GmbH**  
Am Brüll 17, 40878 Ratingen (DE)

E: [lcde.sales@libertysteelgroup.com](mailto:lcde.sales@libertysteelgroup.com)

T: +49 2102 3700 353

### Poland

**Liberty Commercial Poland Sp. z o.o.**  
Francuska 36, 3rd floor, 40-506

E: [lcpl.biuro@libertysteelgroup.com](mailto:lcpl.biuro@libertysteelgroup.com)

T: +48 32 661 98 90



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