



## DD14Bor

Mild non-alloy extra steels for direct cold-forming

Material no.	-
According to Materialinformationsblatt (MIB)	
Tensile Strength Class	A

### General

For particularly complex forming operations, we offer steel grades DD14 Bor (boron-alloyed) and DD14 Ti (titaniumalloyed). Characteristics of this steel grade are a low yield strength and high elongation. Owing to these exceptionally good forming properties, the steel satisfies requirements even for most complex components.

The user of these steel grades must make sure that his calculation, design and processing methods are appropriate for the material. The forming technique used must be suitable for the intended application and comply with the state-of-the-art.

### Chemical composition<sup>1)</sup>

(in percent by weight)

	min. in %	max. in %
C		0.08
Mn	0.10	0.25
P		0.020
S		0.020
B	0.0015	0.0045

1) Heat analysis

### Mechanical properties<sup>1)</sup>

Yield strength R <sub>p0.2</sub>	
longitudinal	150 – 250 MPa
transversal	170 – 290 MPa

Tensile strength R <sub>m</sub>	
longitudinal	280 – 350 MPa
transversal	290 – 380 MPa

Total elongation A <sub>80</sub> <sup>2)</sup>	
longitudinal	≥ 30 %
transversal	≥ 27 %

Total elongation A <sub>5</sub> <sup>2)</sup>	
longitudinal	≥ 34 %
transversal	≥ 30 %

2) It applies to nominal thickness e:

e < 3 mm: A<sub>80</sub>

e ≥ 3 mm: A<sub>5</sub>

### Available dimensions

Hot-rolled coils unpickled, mill edge

Thickness in mm	Width in mm
1.50 – 1.79	900 – 1,250
1.80 – 1.99	900 – 1,400
2.00 – 2.24	900 – 1,520
2.25 – 2.49	900 – 1,700
2.50 – 5.99	900 – 1,880
6.00 – 8.00	900 – 1,950

Thicknesses up to 25 mm on request.

Widths ≤ 2,000 mm on request.

Hot-rolled coils pickled, mill edge

Thickness in mm	Width in mm
1.50 – 1.79	900 – 1,250
1.80 – 1.99	900 – 1,400
2.00 – 2.24	900 – 1,520
2.25 – 2.49	900 – 1,700
2.50 – 5.99	900 – 1,880
6.00 – 8.00	900 – 1,530

Thicknesses up to 10 mm on request.

Hot-rolled coils pickled, trimmed edge

Thickness in mm	Width in mm
1.50 – 1.79	900 – 1,230
1.80 – 1.99	900 – 1,380
2.00 – 2.24	900 – 1,500
2.25 – 2.49	900 – 1,680
2.50 – 5.99	900 – 1,860
6.00 – 8.00	900 – 1,510

Thicknesses up to 10 mm on request.

Hot-rolled wide strip, slit lengthwise

Thickness in mm	Width in mm
1.50 – 1.79	100 – 515
1.80 – 1.99	100 – 635
2.00 – 2.24	100 – 760
2.25 – 7.00	100 – 800
7.01 – 8.00	140 – 800

Thicknesses up to 10 mm on request.

Widths < 100 mm on request.

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