

DD14Bor

Mild non-alloy extra steels for direct cold-forming

Material no.	–
according to	–
Tensile strength class	A

Usage

For particularly complex forming operations, we offer steel grades DD14 Bor (boron-alloyed) and DD14 Ti (titanium-alloyed).

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 composition¹⁾

(in percent by weight)

	min.	max.
C		0.080%
Mn		0.250%
P		0.025%
S		0.025%
B	0.002%	0.004%

1) Heat analysis

Mechanical properties¹⁾

Nom. thick. e	Yield strength $R_{eL}/R_{p0.2}$
2 < e < 3 mm	170 – 300 MPa
3 ≤ e < 8 mm	150 – 250 MPa

Nom. thick. e	Tensile strength R_m
2 < e < 3 mm	290 – 370 MPa
3 ≤ e < 8 mm	280 – 380 MPa

Nom. thick. e	Total elongation $A^{2)}$
2 < e < 3 mm	≥ 34 %
3 ≤ e < 8 mm	≥ 37 %

1) The samples for the tensile test are taken at right angles to rolling direction unless the product width is opposed to this.

2) It applies to nominal thickness e:
e < 3 mm: A_{90}
e ≥ 3 mm: A_5

Available dimensions

Hot-rolled coils unpickled, mill edge

Thickness in mm	Width in mm
1.50 – 1.79	900 – 1250
1.80 – 1.99	900 – 1390
2.00 – 2.24	900 – 1540
2.25 – 2.49	900 – 1700
2.50 – 2.99	900 – 1880
3.00 – 3.99	900 – 1880
4.00 – 6.00	900 – 1880
6.01 – 12.70	900 – 1880

Widths < 900 mm and thicknesses > 12.70 mm on request

Hot-rolled slit strip

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
8.01 – 9.00	175 – 800
9.01 – 10.00	233 – 800

≤100 mm on request