

# COMMERCIAL ROLLED STEEL

**BASIC STEEL GRADE** 08ps (08nc) as per GOST 1050

## MECHANICAL PROPERTIES

Steel grade	Standard	Thickness, mm	Ultimate strength, MPa (N/mm <sup>2</sup> )	Yield strength, MPa (N/mm <sup>2</sup> )	Relative elongation, %, min	Mandrel diameter at 180° bending
08ps (08nc)	GOST 16523	1.5-2.0	270-410	/	24	0a
		2.1-3.9			26	1.0a
08ps (08nc)	GOST 1577	4.0-14.0	≥ 274	0	32	0.5a
DD11	EN 10111	1.45-1.99	≤ 440	170-360	23	a
		2.00-2.99		170-340	24	a
		3.00-8.0			28	a
CS Type A	ASTM A 1011	1.5-5.99	/	/	/	/
	ASTM A 569					
	ASTM A 1018	6.00-14.00				
	ASTM A 830					
1008	SAEJ403	1.45-14.00	/	/	/	/
SPHC	JIS G 3131	1.45-1.59	≥ 270	/	27	0a
		1.60-3.19			29	0a
		3.20-14.0			31	0.5a
St22	DIN 1614-1	1.45-8.0	/	/	/	/
StW22	DIN 1614-2	1.80-1.99	0	/	0	/
		2.00-2.99			25	/
		3.00-12.0			29	/

/ – parameter is not regulated by the standard

0 – as agreed by the parties

a – rolled product thickness

Relative elongation for steel of grade DD11, thickness 3-8 mm, is determined on samples with initial length of

$$l_0 = 5.65\sqrt{S_0}$$

where  $S_0$  is a cross-section area.

Steel with customized mechanical properties is available upon request.

## TOLERANCES FOR DIMENSIONS AND SHAPE OF ROLLED PRODUCTS

Standard for specification	GOST 16523 GOST 1577	DIN 1614-1 DIN 1614-2	SAEJ403 ASTM A 1011 ASTM A 1018 ASTM A 830	JIS G 3131	JIS G 3132
Standard for product mix, geometrical dimensions and tolerances	GOST 19903	EN 10051 (DIN 1016)	ASTM A 568 ASTM A 635	JIS G 3131 JIS G 3193	JIS G 3132 JIS G 3193

Note. The previous designation of the standard is given in brackets.

## THICKNESS/WIDTH RATIO FOR ROLLED PRODUCTS

Thickness, mm	Strip width, mm														
	900	1,000	1,100	1,200	1,250	1,300	1,350	1,400	1,450	1,500	1,550	1,600	1,650	1,700	1,850
1.45-1.89															
1.90-2.49															
2.50-2.99															
3.00-3.19															
≥ 3.20															

Rolled products with customized properties, including thickness/width ratio, are available upon request.