

# STRENGTH CLASS 500 MPA

**BASIC STEEL GRADE** 17GS (17ГC)

## 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	Impact energy, J, min
17GS (17ГC)	GOST 17066	3.0-3.9	≥ 510	/	19	2.0a	/
	GOST 19281	4.0-14.0	≥ 490	≥ 345	21	2.0a	0
09G2S (09Г2C)	GOST 17066	3.0-3.9	≥ 510	/	19	2.0a	/
	GOST 19281	4.0-14.0	≥ 490	≥ 345	21	2.0a	0
S355JR, S355JRC	EN 10025:2	1.50	510-680	≥ 355	13	**	/
		1.51-2.00			14		
		2.01-2.50			15		
		2.51-2.99			16		
		3.00-15.00	470-630	20	27 (+20)*		
S355J0, S355J0C	EN 10025:2	1.50	510-680	≥ 355	13	**	/
		1.51-2.00			14		
		2.01-2.50			15		
		2.51-2.99			16		
		3.00-15.00	470-630	20	27 (0)*		
S355J2, S355J2C, S355J2W	EN 10025:2	1.50	510-680	≥ 355	13	**	/
		1.51-2.00			14		
		2.01-2.50			15		
		2.51-2.99			16		
		3.00-15.00	470-630	20	27 (-20)*		
50	ASTM A 1011	3.0-5.99	≥ 450	≥ 345	17	2.5a	/
55	ASTM A 1011	3.0-5.99	≥ 480	≥ 380	15	3.0a	/
SS490	JIS G 3101	1.50-5.00	490-610	≥ 285	19	2.0a	/
		5.01-15.00			15		/

/ – parameter is not regulated by the standard

a – rolled product thickness

0 – as agreed by the parties

\*\* depending on rolled product thickness

\* minimum impact energy values depend on the sample width

Steel with customized mechanical properties is available upon request.

## TOLERANCES FOR DIMENSIONS AND SHAPE OF ROLLED PRODUCTS

Standard for specification	GOST 17066 GOST 19281	EN 10025	ASTM A 1011	JIS G 3101
Standard for product mix, geometrical dimensions and tolerances	GOST 19903	EN 10051 EN 10029	ASTM A 568	JIS G 3193

## 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	
1.50-1.79																
1.80-2.99																
3.00-3.99																
4.00-4.99																
5.00-5.99																
> 6.00																

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