

# STRENGTH CLASS 350 MPA

BASIC STEEL GRADE

St2sp (Ст2сп) as per GOST 380

## 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		
Ст2сп	GOST 16523	1.5-3.9	300-480	/	23	1.0a	/		
	GOST 14637	4.0-14.0	330-480	≥ 225	32	1.5a	/		
S235JR, S235JRC	EN 10025:2	1.45-1.50	360-510	≥ 235	16	**	/		
		1.51-2.00			17				
		2.01-2.50			18				
		2.51-2.99			19				
		3.00-9.99			24			27 (+20 °C)*	
		10.00-15.00							
S235J0, S235J0C, S235J0W	EN 10025:2	1.45-1.50	360-510	≥ 235	16	**	/		
		1.51-2.00			17				
		2.01-2.50			18				
		2.51-2.99			19				
		3.00-9.99			24			27 (0 °C)*	
		10.00-15.00							
S235J2, S235J2C, S235J2W, S235J2WP	EN 10025:2	1.45-1.50	360-510	≥ 235	16	**	/		
		1.51-2.00			17				
		2.01-2.50			18				
		2.51-2.99			19				
		3.00-9.99			24			27 (-20 °C)*	
		10.00-15.00							
33	ASTM A 1011	1.45-1.60	≥ 360	≥ 230	18	1.0a	/		
		1.61-2.50			22				
		2.51-6.00			23				
	ASTM A 1018	4.50-8.00			16			1.0a	/
		8.01-14.00			22				
1012	SAEJ403	1.45-14.00	/	/	/	/	/		

/ – parameter is not regulated by the standard

a – rolled product thickness

\* impact energy for sample width over 10 mm

\*\* depending on rolled product thickness

Steel with customized mechanical properties is available upon request.

## TOLERANCES FOR DIMENSIONS AND SHAPE OF ROLLED PRODUCTS

Standard for specification	GOST 16523 GOST 14637	EN 10025	ASTM A 1011 SAE J403	ASTM A 1018
Standard for product mix, geometrical dimensions and tolerances	GOST 19903	EN 10051 EN 10029	ASTM A 568	ASTM A 635

## 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
1.45-1.99															
2.00-2.49															
2.50-2.99															
3.00-3.49															
3.50-3.99															
> 4.00															

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