

Chemical composition

Symbol	Chemical Requirements %					
	C	Si	Mn	P	S	C+Mn/6
SD295A	—	—	—	0.050 or less	0.050 or less	—
SD295B	0.27 or less	0.55 or less	1.50 or less	0.040 or less	0.040 or less	—
SD345	0.27 or less	0.55 or less	1.60 or less	0.040 or less	0.040 or less	0.50 or less
SD390	0.29 or less	0.55 or less	1.80 or less	0.040 or less	0.040 or less	0.55 or less
SD490	0.32 or less	0.55 or less	1.80 or less	0.040 or less	0.040 or less	0.60 or less

Mechanical property

Symbol	Yield point or 0.2% Yield Strength N/mm ²	Tensile strength N/mm ²	Tension test piece	Elongation %	Bendability	
					Bend angle	Inside radius
SD295A	Min.295	440~600	Equivalent to No.2	Min.16	180°	D16or less 1.5 × nominal diameter
SD295B	295~390	Min.440	Equivalent to No.2	Min.16	180°	D16or less 1.5 × nominal diameter
SD345	345~440	Min.490	Equivalent to No.2	Min.18	180°	D16or less 1.5 × nominal diameter
SD390	390~510	Min.560	Equivalent to No.2	Min.16	180°	2.5 × nominal diameter
SD490	490~625	Min.620	Equivalent to No.2	Min.12	90°	D25or less 2.5 × nominal diameter

Dimension, mass and allowable limits of knots

Designation	Nominal diameter (d) mm	Nominal circumference (l) cm	Nominal sectional area (S) cm ²	Unit mass kg/m	Maximum value mm of average interval between knots	Height of knot		Maximum value of sum of clearance between knots	Angle of section with axis
						Minimum value mm	Maximum value mm		
D10	9.53	3.0	0.7133	0.560	6.7	0.4	0.8	7.5	Min.45°
D13	12.7	4.0	1.267	0.995	8.9	0.5	1.0	10.0	Min.45°
D16	15.9	5.0	1.986	1.56	11.1	0.7	1.4	12.5	Min.45°

Tolerances on length

Length	Tolerance
7m or less	+40mm 0
over 7m	For each increase of 1m in length or its fraction, further 5mm shall be added to the tolerances on the plus side given above. However, the maximum value shall be limited to 120mm

Tolerances on mass of one piece

Dimensions	Tolerance
Designation D10 and over, up to and excl. D16	±6%
Designation D16	±5%

Tolerances on mass of one set

Dimensions	Tolerance
Designation D10 and over, up to and excl. D16	±5%
Designation D16	±4%