

【材料】 标准材料尺寸表2

■ 不锈钢材料

种类	材料符号	形状	单位	标准尺寸
奥氏体类	SUS303	圆棒	D	3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,25,26,28,30
奥氏体类	SUS304	扁钢	t	3,4,5,6,8,9,10,12,14,15,16,19,20,22,25,28,30,35,40,45,50,55,60,70
		角钢	□	5,6,7,8,9,10,12,13,14,15,16,19,20,22,25,28,30,32,36,38,40,45,50,60
		六角钢	对边H	8,10,14,17,19,21,22,23,24,26,29,30,32,35,36,38,41,46
		圆钢	D	3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,28,30,32,34,35,36,38,40,42,45,46,48,50,55,60,65,70,75,80,85,90,95,100,110,120,130,140,150,160,170,180,190,200,210,220,230
钢板	t	0.3,0.4,0.5,0.6,0.8,1,1.2,1.5,2,2.5,3,4,5,6,7,8,9,10,12,15,20		

■ 铜合金材料

种类	材料符号	形状	单位	标准尺寸
黄铜板	C2801P	钢板	t	0.1,0.15,0.2,0.3,0.4,0.5,0.8,1,1.2,1.5,1.6,2,2.3,2.5,3,3.5,4,5,6,7,8,9,10,12,15,20,25,30,40,50
快削黄铜 (挤压棒)	C3604BD	角钢	□	3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,28,30,32,35,36,38,40,42,45,50,55,60,65,70,75,80,85,90,95,100
		六角钢	对边H	5,5.5,6,7,8,9.5,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,32,34,35,36,38,40,41,42,44,45,46,50,54,55,58,60,65,70,75,80
		圆棒	D	3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,32,33,34,35,36,38,40,42,45,46,47,48,50,51,52,53,54,55,56,57,58,60,65,70,75,80,85,90,95,100,105,110,115,120,125,130,135,140,145,150,160,170,180,190,200,210,220,230,240,250,270,280,300,320,350

■ 铝合金材料

种类	材料符号	形状	单位	标准尺寸
Al-Cu类合金	A2017	扁钢	t	0.5,0.6,0.8,1,1.2,1.5,1.6,2,2.5,3,4,5,6,8,10,12,15,20,25,30,40,45,50,60,70,80,90,100
		圆棒	D	5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,70,75,80,85,90,95,100,105,110,115,120,125,130,135,140,150,160,170,180,190,200,210,220,230,240,250,260,280,300
Al-Mg类合金	A5052	扁钢	t	0.4,0.5,0.6,0.7,0.8,1,1.2,1.5,1.6,2,3,3.2,4,5,6,7,8,10,12,15,16,18,20,22,25,30,35,40,45,50,55,60,65,70,75,80,85,90,95,100,105,110,120,130,150,160,170,180,200
Al-Mg类合金	A5056	圆棒	D	5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,70,75,80,85,90,95,100,105,110,115,120,125,130,135,140,150,160,170,180,190,200,210,220,230,240,250,260,270,280,290,300,310,320,330,340,350,360,370,380,390,400,420
Al-Mg-Si类合金	A6063	角钢	□	6,8,10,12,14,15,16,18,19,20,22,25,30,32,35,40,45,50,60,70,80,100

■ 树脂类材料

种类	材料符号	形状	单位	标准尺寸
多层板	胶木	板	t	(0.5), (0.6),0.8,1,1.2,1.5,1.6,2,2.5,3,4,5,6,8,10,12,15,16,20,25,30,35,40,50 ()内仅为布板
聚酰胺树脂	尼龙6·66	板	t	5,10,15,20,25,30,40,50
		棒	D	6,8,10,15,20,25,30,35,40,45,50,55,60,65,70,75,80,90,100,120,140,160,180,200
(MC尼龙)	MC尼龙	板	t	5,7,10,12,15,20,25,30,35,40,45,50,60,70,80,90,100,110,120
		棒	D	20,25,30,35,40,45,50,55,60,65,70,75,80,85,90,95,100,110,120,130,140,150,160,170,180,190,200,225,250,275,300,325,350,375,400,450,500,600
聚缩醛(POM)树脂	聚缩醛(POM)	板	t	5,6,8,10,12,15,20,25,30,35,40,50,60,70,80,90,100
		棒	D	4,5,6,7,8,9,10,12,12.5,13,15,16,17.5,20,22.5,25,30,35,40,45,50,55,60,65,70,75,80,85,90,100,110,120, (130), (140),150, (160), (180),200
一般用异丁烯树脂板	丙烯	板	t	0.8,1,1.5,2,3,4,5,6,8,10,15,20,25,30

【材料参数】 JIS和国际规格的材料对照表1

■ 有机机械结构碳素钢、合金钢

日本工业规格 规格编号 名称	符号	ISO 683/1,10,11	AISI SAE	BS 970Part1	DIN 17210,17200	NF A35-551-554	ГОСТ 1050.4543	日本工业规格 规格编号 名称	符号	ISO 683/1,10,11	AISI SAE	BS 970Part1	DIN 17210,17200	NF A35-551-554	ГОСТ 1050.4543
JIS G 4051 机械结构用 碳素钢	S10C	C10	1010	040A10 045A10 048M10	CK10 C 10	XC10	10	JIS G 4102 镍铬钢	SNC236	—	—	—	—	—	40XH
	S12C	—	1012	040A12	—	XC12	—		SNC415	—	—	—	—	—	—
	S15C	C15E4 C15M2	1015	055M15	CK15 C 15	—	15		SNC631	—	—	—	—	30NC11	30XH3A
	S17C	—	1017	—	—	XC18 XC18S	—		SNC815	15NiCr13	—	655M13	—	—	—
	S20C	—	1020	070M20	CK22 C 22	—	20		SNC836	—	—	—	—	—	—
	S22C	—	1023	—	CK22 C 22	—	—	JIS G 4103 镍铬钼钢	SNCM220	20NiCrMo2 20NiCrMoS2	8615 8617 8620 8622	805A20 805M20 805A22 805M22	—	20NCD2	—
	S25C	C25 C25E4 C25M2	1025	070M26	—	XC25	25		SNCM240	41CrNiMo2 41CrNiMoS2	8640	—	—	—	—
	S28C	—	1029	—	—	—	25Г		SNCM415	—	—	—	—	—	—
	S30C	C30 C30E4 C30M2	1030	080A30 080M30	—	—	30 30Г		SNCM420	—	4320	—	—	—	20x20M(200M)
	S33C	—	—	060A32 080A32	—	XC32	30Г		SNCM431	—	—	—	—	—	—
	S35C	C35 C35E4 C35M2	1035 1037	080A35 080M36	CK35 C 35	—	35 35Г		SNCM439	—	4340	—	—	—	—
	S38C	—	1038	080A37	—	XC38 XC38H1 XC38H2	35Г		SNCM447	—	—	—	—	—	—
	S40C	C40 C40E4 C40M2	1039 1040	060A40 080A40 080M40	—	—	40 40Г		SNCM516	—	—	—	—	—	—
	S43C	—	1042 1043	080A42	—	XC42H1 XC42H2	40Г		SNCM625	—	—	—	—	—	—
	S45C	C45 C45E4 C45M2	1045 1046	060A45 080M46	CK45 C 45	XC45	45 45Г		SNCM630	—	—	—	—	—	—
	S48C	—	—	060A47 080A47	—	XC48 XC48H1 XC48H2	45Г	JIS G 4104 铬钢	SCr415	16MnCr5 16MnCrS5	—	—	—	16MC5	15X 15XA
	S50C	C50 C50E4 C50M2	1049	080M50	—	XC50	50 50Г		SCr420	20Cr4 20CrS4	5120	—	—	20MC5	20X
	S53C	—	1050 1053	080A52	—	XC54	50Г		SCr430	34Cr4 34CrS4	5130 5132	530A30 530A32	34Cr4	32C4	30X
	S55C	C55 C55E4 C55M2	1055	070M55	CK55 C 55	XC55H1 XC55H2	55		SCr435	34Cr4 34CrS4 34Cr4 34CrS4	5135	530A36	34Cr4 37Cr4	38C4	35X
	S58C	C60 C60E4 C60M2	1060	060A57 080A57	CK60 C 60	XC60	60 60Г		SCr440	37Cr4 37CrS4 41Cr4 41CrS4	5140	530A40 530M40	37Cr4 41Cr4	42C4	40X
	S09CK	—	—	045A10 045M10	CK10	XC10	10		SCr445	—	5145 ¹⁾	—	—	45C4	45X
	S15CK	—	—	—	CK15	XC12	15	JIS G 4105 铬钼钢	SCM415	—	—	—	—	—	—
	S20CK	—	—	—	CK22	XC18	20		SCM418	18CrMo4 18CrMoS4	—	—	—	18CD4	20XM
JIS G 4106 机械结构用 锰钢材料 锰铬钢	SMn420	22Mn6	1522	120M19 150M19	—	20M5	—		SCM420	—	708M20	—	—	20XM	—
	SMn433	—	1536 ¹⁾	120M36 150M36	—	35M5	35Г 2		SCM421	—	—	—	—	20XM	—
	SMn438	36Mn6	1541	150M36	—	40M6	40Г 2		SCM430	—	4130	708A30	—	30CD4	20XM 30XMA
	SMn443	42Mn6	1541	135M44 150M40	—	40M6	40Г 2 45Г 2		SCM432	—	—	—	—	—	—
	SMnC420	—	—	—	—	—	—		SCM435	34CrMo4 34CrMoS4	4135 ¹⁾ 4137	708A37 708A37	34CrMo4	34CD4 35CD4 38CD4	35XM
	SMnC443	—	—	—	—	—	—		SCM440	42CrMo4 42CrMoS4	4140 4142	708A40 708M40 708A42 708A42	42CrMo4	42CD4	—
JIS G 4202 铬钼钢	SACM645	41CrAlMo74	—	905M39	41CrAlMo7 ²⁾	40CAD6.12	—		SCM445	—	4145 4147	708A47	—	—	—
JIS G 4052 保证淬火性的 结构用钢 (工字钢)	SMn420H	22Mn6	1522H	—	—	20M5	—	JIS G 4107 高温用合金 钢螺栓材料	SNB22-1~5	—	—	—	—	—	—
	SMn433H	—	—	—	—	35M5	—		SNB7	—	4140 4142 4145	42CrMo4 ³⁾	42CD4	—	—
	SMn438H	36Mn6	1541H	—	—	40M6	—		SNB16	—	—	BS1506-661 BS1506-661	40CrMoV4 ³⁾ 42CDV4 ⁴⁾	—	—
	SMn443H	42Mn6	1541H	—	—	40M6	—		SNB21-1~5	—	—	—	—	—	—
	SMnC420H	—	—	—	—	—	—		SNB22-1~5	—	4142	708A42 709A42	42CrMo4 ³⁾	42CD4	—
	SMnC443H	—	—	—	—	—	—		SNB23-1~5	—	E4340	—	—	—	—
	SCr415H	16MnCr5 16MnCrS5	—	—	—	16MC5	15X		SNB24-1~5	—	—	—	—	—	—
	SCr420H	20Cr4 20CrS4	5120H	—	—	20MC5	20X								
	SCr430H	34Cr4 34CrS4	5130H 5132H	530H32	34Cr4	32C4	30X								
	SCr435H	34Cr4 34CrS4 37Cr4 37CrS4	5135H	530H36	34Cr4 37Cr4	38C4	35X								
	SCr440H	37Cr4 37CrS4 41Cr4 41CrS4	5140H	530H40	37Cr4 41Cr4	42C4	40X								
	SCM415H	—	—	—	—	—	—								
	SCM418H	18CrMo4 18CrMoS4	—	—	—	18CD4	—								
	SCM420H	—	—	708H20	—	—	—								
	SCM435H	34CrMo4 34CrMoS4	4135H 4137H	708H37	34CrMo4	34CD4 38CD4	—								
	SCM440H	42CrMo4 42CrMoS4	4140H 4142H	708H42	42CrMo4	42CD4	—								
	SCM445H	—	—	708H45	—	—	—								
	SCM822H	—	—	—	—	—	—								
	SNC415H	—	—	—	—	—	—								
	SNC631H	—	—	—	—	30NC11	—								
	SNC815H	15NiCr13	—	65											