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Stainless Steel Characteristic List

Items	Type of stainless steel					Mechanical properties							Physical properties			
	UNS	AISI	DIN	ISO	KS（JIS)	Heat treatment condition	Internal stress(N/m m2)	tensile strength(N /mm2)	Elongation（%）	Hardness			Specific heat J/g0C	Elastic coefficient×103 N/mm2	Thermal expansion coefficient×10- 6 cm/cm/0C(2.0 ~1000C)	Thermal conductivity W/m.
										HB	HRB	HV				
Austenitic stainless steel	S30100	301	×12CrNi17 7	14	301	S	≥205	≥520	≥40	≤207	≤95	≤218	0.5	194	16.9	16.3
	-	-	×2CrNi18 7	-	301L	S	≥215	≥550	≥45	≤187	≤90	≤200	0.5	194	16.9	16.3
	S30400	304	×5CrNi18 10	11	304	S	≥205	≥520	≥40	≤187	≤90	≤200	0.5	194	17.3	16.3
	-	-	-	-	304J1	S	≥155	≥450	≥40	≤187	≤90	≤200	0.5	194	17.3	16.3
	S30403	304L	×2CrNi19 11	10	304L	S	≥175	≥480	≥40	≤187	≤90	≤200	0.5	194	17.3	16.3
	S30451	304N	-	-	304N1	S	≥275	≥550	≥35	≤217	≤95	≤200	0.5	194	17.3	16.3
	S30452	-	-	-	304N2	S	≥345	≥690	≥35	≤248	≤100	≤260	0.5	194	17.3	16.3
	S31600	316	×5CrNiMo17 12 2 ×5CrNiMo17	20、20a	316	S	≥205	≥520	≥40	≤187	≤90	≤200	0.5	194	16	16.3
	S31603	316L	×2CrNiMo17 13 2 ×2CrNiMo17	19、19a	316L	S	≥175	≥480	≥40	≤187	≤90	≤200	0.5	193	16	16.3
	S32100	321	×6CrNiTi18 10	15H11	321	S	≥205	≥520	≥40	≤187	≤90	≤200	0.5	194	16.7	16.1
Ferritic stainless steel	-	-	-	-	409L	A	≥175	≥360	≥25	≤162	≤80	≤175	0.46	200	11.7	24.9
	-	-	-	-	410L	A	≥195	≥360	≥22	≤183	≤88	≤200	0.46	200	9.9	25.1
	S43000	430	×6Cr17	8、H4	430	A	≥205	≥450	≥22	≤183	≤88	≤200	0.46	200	10.4	26.4
	-	-	-	-	430J1L	A	≥205	≥390	≥22	≤192	≤90	≤200	0.46	200	10.4	25
	S43600	436	-	-	436L	A	≥245	≥410	≥20	≤217	≤96	≤230	0.46	200	10.4	25
Martensitic stainless steel	S41000	410	×10Cr13	3	410	A	≥205	≥440	≥20	≤201	≤93	≤210	0.46	202	9.9	24.9
	S42000	420	×20Cr13	4	420J1	A	≥225	≥520	≥18	≤223	≤97	≤234	0.46	202	10.3	23.8
	S42000	420	×20Cr13	5	420J2	A	≥225	≥540	≥18	≤235	≤99	≤247	0.46	202	10.3	23.8

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Frequently Asked Questions on Stainless Steel Characteristics:

Q: What are the main differences between 300 series and 400 series stainless steel? A: According to the list, Austenitic stainless steel (300 series) like 304 and 316 offers higher elongation and better corrosion resistance, while Ferritic and Martensitic steels (400 series) provide different hardness levels
(HB/HRB/HV) suitable for specific industrial tools and wear-resistant parts.

Q: Can Channov Precision provide customized machining based on these international standards? A: Yes, we specialize in CNC machining of various stainless steel grades including AISI 304, 316L, 430, and 420. Our components meet rigorous mechanical property requirements as detailed in the technical data sheet above.

CHANNOV AUTO PARTS is a leading manufacturer in the production Oilless Bush, Marginal Lubricating Bush, Bimetal bushing, Bronze Bush, Solid Lubricant Embedded Bush, Cast bronze bearing, Teflon bushing, FR bearing, Door hinge bushing. If you want to know more about material or get a free inquiry, please contact us: info@channovprecision.com , we will reply to you within 2 hours.