

Material Data



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Material	Standard				Character
	GB	DIN	JIS	ASTM	
Carbon steel and carbon alloy steel	65Mn	C67S	SWRH67A/WRH67B	1566	After being cold drawn and hardened, the strength is relatively high, with certain flexibility and plasticity. It is mainly used for smaller size springs, such as pressure regulating springs, force measuring springs, round and square spiral springs on general machinery,
	T8Mn	C85W	SK85 (SK5)	SAE1085	These materials with high strength and hardness, high elastic limit and fatigue limit. But with poor welding performance and cold plastic deformation ability. Mainly used in the manufacture of springs and wear-resistant parts.
	T7A	C70W2	SK7	SAE1070	
	50CrVA	51CrV4/50CrV4	SUP10	G6150	This is the most common material used in springs production. As this material has the character of good mechanical properties and process properties, high hardenability, high fatigue strength, and high yield ratio.
	60Si2MnA	60SiCr7	SUP7	ASTM9260	It is suitable for the production of high load, heat-resistant springs below 250°C.
Corrosion resistant steel	17Cr-7Ni	X12CrNi177	SUS301	301	SUS301 stainless steel with high strength that is used in railway vehicles, belt conveyors, bolts and nuts, springs, etc.
	0Cr18Ni9	X5CrNi1810	SUS304	304	Good heat resistance, widely used in the production of corrosion-resistant and formability equipment and parts. At present, the most widely used stainless steel material on the market.
	0Cr17Ni12Mo2	X5CrNiMo1712	SUS316	316	SUS 316 has good high temperature strength and high corrosion resistance. Suitable for applicable equipment in seawater, chemistry, dyes, papermaking, etc.
	0Cr17Ni7Al	X7CrNiAl17-7	SUS631	17-7PH	Character: High strength/ high hardness/ fatigue resistance/ Good corrosion resistance. The spring performance is still good when the temperature reaches 316°C
High temperature steel	GH4145	NiCr15Fe7TiAl	NCF750	Inconel X-750	It has good relaxation resistance below 540°C, suitable for the flat springs and coil springs that requires high-strength relaxation-resistant.
	GH4169	NiCr19Fe19Nb5Mo3	(X718)	UNS NO7718	It has high strength, good toughness and corrosion resistance. Widely used in high and low temperature environments below 650°C. Application: 1. Steam turbine 2. Liquid fuel rocket 3. Cryogenic engineering 4. Acidic environment 5. Nuclear engineering
Special alloy	QBe2	CUBe2.0		C17300	High electrical conductivity, thermal conductivity and cold resistance.