

Stainless Steel Chemical composition (Daido grades)

Classification	Major Properties	Daido Grade	Chemical composition (mass%)								Similar grade				Applications	
			C	Si	Mn	Ni	Cr	Mo	Free cutting element	Special element	JIS	AISI	DIN	EN		
Martensitic	Free-cutting	DSR03F	0.12	0.4	0.5		12.2			Added		SUS403	403			Valve parts, electric appliances
		DSR10F	0.10	0.4	0.5		12.5			Added		SUS410F2				Machinery parts, water pump shafts
		DSR10FA	0.05	0.4	0.5		13.0			Added		SUS410F2				Golf club head
		DSR16F	0.10	0.4	1.0		13.0			Added		SUS416	416		X12CrS13	Screw, bolt, nut, precision parts
		DSR16FC	0.14	0.3	1.2		12.4			Added		SUS416	416		X12CrS13	Screw, bolt, nut, precision parts
		DSR20F	0.33	0.4	0.5		13.0			Added		SUS420F2				Valve parts, machinery parts
		DSR20FD	0.32	0.3	1.0		12.3			Added		SUS420F2				Valve parts, machinery parts
	DSR7F	0.70				12.0			Added						High hardness cutting parts	
	High strength	DSR31H	0.18	0.6	0.7	1.7	15.8					SUS431	431	X20CrNi17-2	X19CrNi17-2	Heat and corrosion resistant spring, high strength and seawater-resistant machinery parts
		DSR7	0.70	0.5	0.6		12.0	Added								Shaft, bearing
		DSR03H	0.13	0.3	0.5	0.4	11.8	Added			SUS403	403				Turbine blade, shaft
		DSR20H	0.19	0.5	0.6		13.5				SUS420J1	420	X20Cr13	X20Cr13		Tableware, shaft
		DSR20HA	0.23	0.4	0.5		13.5				SUS420J1	420	X20Cr13	X20Cr13		Tableware (hoop or sheet bar)
		DSR20HB	0.40	0.4	0.4		13.5									Corrosion resistant spring and shaft
	Cold forging	DSR10U	0.06	0.3	0.5		13.5				SUS410	410	X10Cr13	X12Cr13		Tableware (hoop or sheet bar)
		DSR10UA	0.05	0.3	0.5		13.5				SUS410	410	X10Cr13	X12Cr13		Small scissors, screw(wire rod or bar)
		LAK41	0.50	0.2	0.15		16.0	Added								Solenoid valve parts, cold drawing
		LAK42	0.52	0.2	0.2		13.0	Added			SUS440A	440A		X70CrMo15		Shaft, bearing, cold drawing
	For knives	DSR1K2	0.20	1.00	1.00	0.50	13.5				SUS420J1	420	X20Cr13	X20Cr13		Motor shaft, machinery parts
		DSR1K3	0.30	1.00	1.00	0.50	13.5				SUS420J2		X20Cr13	X30Cr13		Tableware (hoop or sheet bar)
DSR1K6		0.60	1.00	1.00	0.50	13.5	0.1		Added						Stainless steel knives	
DSR1K7		0.70	1.00	1.00	0.50	13.5	0.1		Added						High grade stainless steel, razor blade, surgical knives	
DSR1K8		0.80	1.00	1.00	0.50	13.5	0.1		Added						Stainless steel knives	
Ferritic	Free-cutting	DSR1F	0.12	0.4	1.3		17.0	Added	Added	Added						Parts for watch, camera, gauge, precision equipment
		DSR30F	0.08	0.4	0.5		17.0		Added	Added	SUS430F	430F	X7CrMoS18	X6CrMoS17		Screw, bolt, nut, general parts
		DSR30FA	0.03	0.4	0.5		18.0		Added	Added	SUS430F	430F	X7CrMoS18	X6CrMoS17		Parts for precision equipment
	Cold workability	DSR6F	0.01	0.5	1.2		20.0	2.0	Added							Parts for precision equipment
		DSR30U	0.06	0.3	0.5		16.5				SUS430	430	X6Cr17	X6Cr17		Screw, window wiper
		DSR31U	0.10	0.6	0.7	1.7	16.0				SUS431	431	X20CrNi17-2	X19CrNi17-2		Seawater resistant or high strength screw
		LAK51	0.01	0.15	0.3		19.0			Added	SUS430LX		X6CrTi17,X6CrNb17	X3CrTi17,X3CrNb17		Anchor bolt, cold forging
		LAK52	0.01	0.15	0.3		20.0	1.0		Added						Screw for automobile, cold forging
		304BF	0.07	0.5	0.7	9.0	18.5			Added	SUS304	304	X5CrNi18-10	X4CrNi18-10		Food machine
Austenitic	Free-cutting	303FL	0.07	0.5	0.7	9.0	18.0			Added	SUS303	303	X10CrNiS18-9	X8CrNiS18-9		Precision machine parts
		DSH400F	0.10		1.8	9.5	18.0			Added						Cutting parts for electric appliance
	High strength, non-magnetic and free-cutting	DSN6	0.09		1.5	12.0	18.0				SUS304N2					VTR guide pin
		DSN9	0.03		6.0	10.0	23.0	2.0								Gasket, drilling screw
	High strength, non-magnetic	DNM110			15.0	3.0	18.0	1.0								Non-magnetic drill collar, spring
		DSK6U	0.05			10.0	18.0			Added						High strength bolt, shaft
	Corrosion resistance	SA-1				25.0	19.0	7.0								Seawater pump, shaft
Precipitation hardening	Cold workability	SUS630-S	ULC			4.5	16.0			Added	SUS630			X5CrNiCuNb16-4		High strength bolt, shaft
		DSP1H	0.02	0.20	0.2	6.5	13.0			Added						Medical appliance, cylinder, pin, shaft
Austenitic, ferritic	High strength, corrosion resistance	DSD1H	0.02	0.6	0.8	5.5	24.0	1.5		Added	SUS329J1					Seawater pump, chemical industry parts
		DSD5	0.03	0.7	0.7	5.5	24.0	2.8			SUS329J4L			X2CrNiMoCuN25-6-3		Seawater pump, bolt

Rule of Daido grade name; Daido grades are named under the following rule (there are some exceptions)

