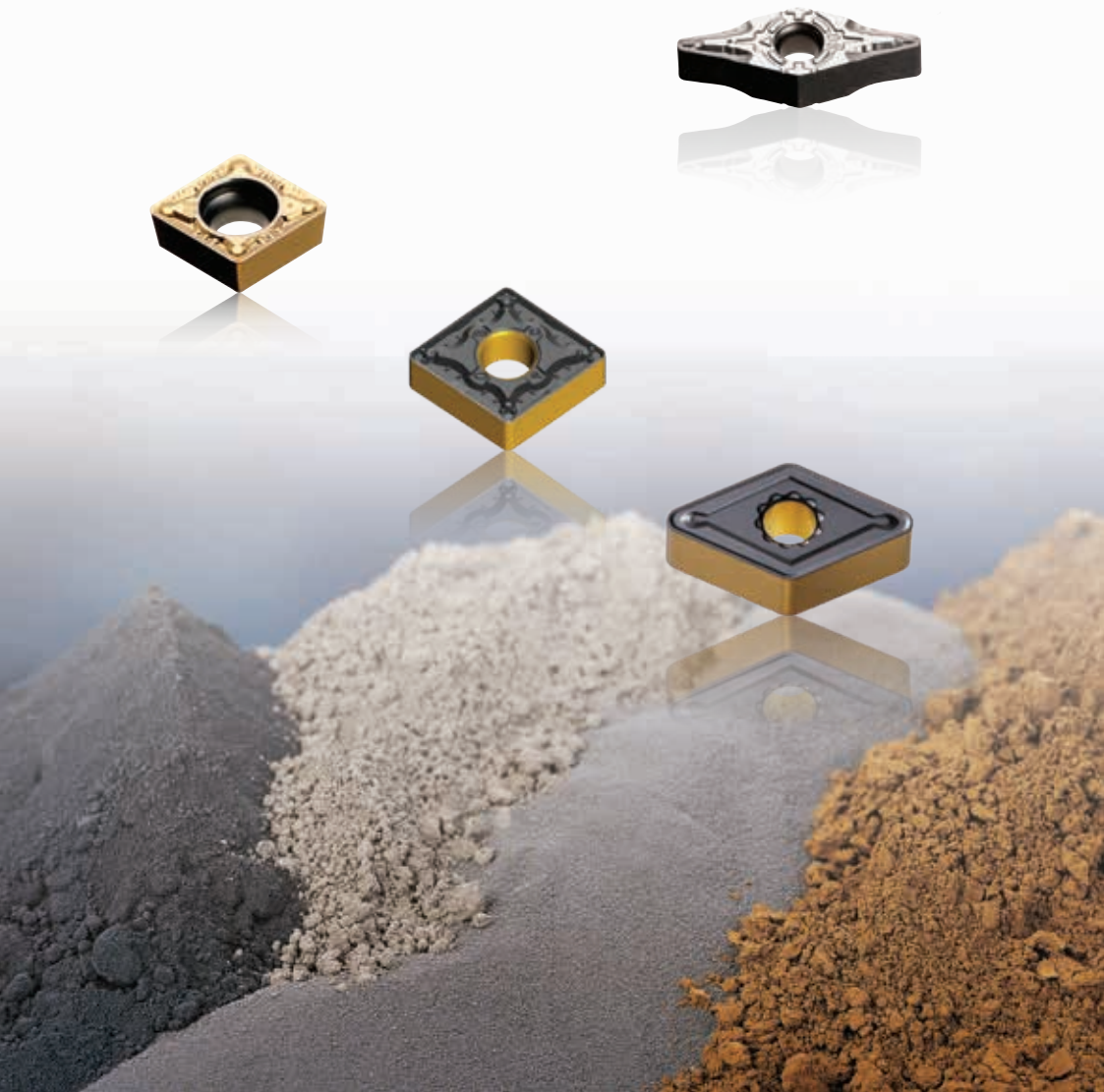
MATERIALS & GRADES



Grade Comparison Table

Turning grades

ISO class	TaeguTec	Sandvik	Walter	Seco	Kennametal	MMC	Sumitomo	Tungaloy	Kyocera	Korloy	Iscar
P	TT8105B TT8105	GC4305 GC4205	WKP01G WPP05S WPP05	TP0501 TP0500	KCP05	UE6105 UE6005	AC810P	T9205 T9105 T9005	CA510 CA5505		
	TT8115B TT8115	GC4415 GC4315	WKP10G WEP10C WPP10S WPP10 WPV10	TP1501 TP1500	KCP10 KCP10B	MC6115 MC6015 UE6110	AC8015P AC820 AC1000	T9215 T9115 T9015	VP5115 CA515 CA5515 PR1705	NC3215 NC3010	IC807 IC8150 IC9150
	TT8125B TT8125 TT5100 TT9080	GC4425 GC4325	WNN10 WPP20G WPP20S WMP20S WPV20	TP2501 TP2500 TP25	KCU10B KCP25 KCP25B	MC6125 MC6025 UE6020 VP10RT MS7025 VP15TF	AC8025P AC2000 AC1030U ACZ150 AC5005S AC5025S AC520U	T9225 T9125 T9025 AH7025 AH730	CA025P VP5125 CA525 CA5525 PR930 PR1025 PR1725	NC3225 NC3220 NC5330 NC3120 PC5300	IC8250 IC9250
	TT8135B TT8135 TT7100 TT8080 TT8020	GC4335 GC4235 GC2135	WPP30G WPP30S WPP30	TP3501 TP3500	KCP30 KCP30B KCP40	MC6035 UH6400	AC8035P AC830P AC3000	T9235 T9135 T9035	CA530 CA5535 PR1535	NC500H NC5340 NC5350 NC3030 PC5400	IC8350 IC9350 IC830
M	TT9215 TT5080 TT3020	GC2015 GC1115	WNN10 WSM01 WSM10 WSM10S WAM10	TM1501 TM2000 TH1000 TS2000 TS2050 CP200	KCM15B KCM15 KCU10 KCU10B KCS10 KC5510 KC5010	MC7015 US7020 VP10RT MS6015	AC6020M AC610M AC5005S AC5015S AC510U ACZ150 AC520U	T6120 AH110 AH120 AH8005 AH8015	KX409 CA6515 PR930	NC9115 NC9020 PC8105 PC8110	IC6015 IC807 IC804
	TT9225 TT9080	GC2025 GC2220 GC1125	WMP20S WSM20 WSM21	TM2501 TS2500 CP500	KCM25B KCM25 KCU25 KC5525 KC5025	MC7025 US735 MH515 MS7025 MS9025 VP15TF VP20MF VP20RT UP20M	AC6030M AC630M AC5025S AC6040M AC1030U AC530U	T6130 AH630 AH725 AH7025 GH110	CA6525 PR1025 PR1125 PR1225 PR1425 PR1725 PR120S	NC9125 NC5330 NC5340 PC8115 PC5300 PC9030 PC9035	IC6025
	TT9235 TT8080 TT8020	GC2135 GC2035 GC30	WSM30 WAM30	TM3501 TM4000 CP600	KCM35B KCM35	MP7035 UH6400 MP7035	AC6040M	AH6030 T6030 AH645	PR1325 PR1535	NC9135 NC5350 PC5400	IC5400 IC3028 IC830
K	TT7005	GC3205 GC3005	WKK10S WAK10	TK0501 TK1001 TK1000	KCK05	MC5005 UC5105	AC405K	T5105 T5010	CA310 CA4505 CA4010	NC6310 NC6205 NC6105	IC5005 IC4028
	TT7015	GC3210 GC3015	WKK20S WAK20	TK1501 TK2001 TK2000	KCK15 KCK15B	MC5015 UC5115	AC410K AC415K	T5115 T5020 T515	CA315 CA4515 CA4115	NC6315 NC6210 NC6110	IC5010
	TT7025	GC3215 GC3225	WAK30		KCK20B KCK20	MH515	AC420K	T5125	CA320 CA4120	NC6215	IC8150
S	TT3005 TT5080 TT3010	GCS05F GC1105 GC1115	WNN10 WSM01	CP200 CP250 TH1000 TH1500 TS2000 TS2050 TS2500	KCU10 KCU10B KCS10 KCS10B KC5510 KC5010	MV9005 US905 MP9005 MP9015 VP05RT VP10RT	AC5005S AC5015S AC510U ACZ1500	AH8005 AH110 AH905 AH8015	PR1305 PR115S	PC8105 PC8110	IC804 IC807 IC806 IC1007 IC907
H	TT3020 TT9080 TT8080	GC15 GC1125 GC1135 GC1515 GC1525 S205	WSM10 WSM10S WSM21 WSM20 WSM20S WSM30 WSM30S	TS2500 CP500 CP600	KCU25 KCU30 KC5525 KC5025	MS6015 VP15TF VP20RT MP9025 MS9025 MS7025	AC520U AC5025S AC6040M AC1030U AC530U	AH9030 AH120 AH725 AH7025 SH730 AH7025 AH6030	PR1310 PR005S PR015S PR115S PR120S PR1125 PR1325 PR1535	PC8115 PC5300 PC5400 PC9035	IC808 IC908 IC830

Grade Comparison Table

▶ Miniature turning grades

ISO class	TaeguTec	ARNO	Diametal	Kyocera	NTK	Tungaloy	Sumitomo	Horn
P	TT4410 TT4430 TT9020	AM5015 AM5025 AM5020 AM5120 AM5120+ AP7220 AP5030 AM5040	D60 D30 D10	PR1705 PR1725 PR1425 PR1005 PR1025 PR1115 PR1225 PR930 PR1535	VM1 DM4 DT4 TM4 ZM3 QM3 CP7	AH710 SH725 SH730 AH725 AH7025 AH730 AH9030 AH120 AH130 AH3135	ACZ150 AC5015S AC5025S AC530U AC1030U	TH35 (TiAlN) TI25(TiCN) TN35(TiN)
M	TT4410 TT4430 TT9020	AM5110 AN5015 AM5025 AM5020 AM5120 AM5120+ AM5220 AM5130 AP7220 AP5030 AM5040	D60 D30 D20 D10	PR1705 PR1725 PR1425 PR1025 PR1125 PR1225 PR930 PR1535	ST4 VM1 DM4 DT4 TM4 ZM3 QM3	AH710 SH725 AH725 AH120 AH130	ACZ150 AC5015S AC5025S AC530U AC1030U	TH35 (TiAlN) TI25(TiCN) TN35(TiN)
S	TT4410 TT4430 TT9020	AM5110 AM5015 AM5025 AM5120 AM5120+ AM5220 AM5130 AP7220 AP5030	D60 D30 D20	PR1305 PR1310 PR1325 PR1125 PR1535	DM4 DT4 TM4 QM3 ZM3	AH905 AH8005 AH8015 AH110 SH730 AH725 AH120	ACZ150 AC5015S AC5025S AC530U AC1030U	TH35 (TiAlN) TI25(TiCN) TN35(TiN)

Grade Comparison Table

▶ Parting & Grooving Grades

ISO class	TaeguTec	Sandvik	Walter	Seco	Kennametal	MMC	Sumitomo	Tungaloy	Kyocera	Korloy	Iscar
P	TT5100 TT9080 TT9030 TT4430 TT9010 TT7220 TT8020	CT525 GC3115 GC5015 GC4325 GC4225 GC1125 GC1225 GC2135 GC1135 GC1145	WSM13S WKP23S WSM23S WKP33S WSM33G WSM33S WSM43S	CP200 TGP25 TGP35 TGP45 CP30 T25M T350M CP500 CP600	KCP10 KCP10B KCP25 KCP25B KT315 KC9110 KC9125 KC5010 KC5025 KCU10 KCU25 KCM35B	NX2525 NY5015 VP10RT VP20RT RT9010 RT9020	AC8025P AC830P AC8035P AC530U ACZ150 AC510U AC520U AC5025S AC530U AC1030U T2500A	AH8005 GH130 AH725 T9215 AH725 AH7025 T9225 SH730 GH730 SH730 NS9530 T9530 AH6235 AH710 J740 TX10S UX30	PV7040 PR915 PR1115 PR1215 TN620 TN6020 TN60 TN90 TC40 TC60 CR9025 PR1025 PR1225 PR1625 PR930 PR630 PR660 PR1535	CN20 A30 NC3020 NC3120 NC3225 NC3030 NC5330 NC9025 PC8110 PC3535 PC5300 PC9030 PC3035 PC230	IC20N IC907, IC507 IC1007 IC9015, IC9025, IC9054 IC807(907) IC808(908) IC1008 IC8250 IC250(950) IC5400 IC354, IC328 IC830(928) IC228
M	TT5100 TT3010 TT9080 TT9030 TT4430 TT3020 TT7220 TT8020	H13A GC1005 GC1105 GC5015 GC1125 GC1225 GC2135 GC1135 GC1145	WSM13S WSM23S WSM33G WSM33S WSM43S	CP200 TGP25 TGP35 TGP45 TGS2050 T25M T350M 890 CP500 HX 883 CP600	K313 KCU10 KC5010 KCU25 KC5025 KCM35B	VP10RT VP20RT	AC8035P ACZ150 AC510U AC5015S AC520U AC5025S AC530U AC1030U AC6040M	AH8005 GH130 AH725 SH725 SH7025 AH6235 SH730 GH730 J740 AH710	PV7040 PR915 PR1115 PR1215 TN620 TN6020 TN60 TN90 TC40 TC60 CR9025 PR1025 PR1225 PR930 PR630 PR660 PR1535	NC9025 NC5330 PC8110 PC9030 PC3035 PC5300	IC1007 IC807 IC907 IC808(908) IC1008 IC8250 IC5400 IC1028(830, 928) IC354, IC328 IC228
K	K10 TT7505 TT6080 TT9080 TT9030	H13A GC3115 GC4225 GC4425 GC1125 GC1225 GC1025 GC1125 GC1135	WTA33 WKP13S WAK20 WKP23S WAK30 WKP33S WSM33G WSM33S WPP23	TGH1050 TGK1500 CBN200 CP200 890 HX TGP25 TGP35 TGP45 TGS2050 883 CP500 CP600	K313 KCU10 KCP25B KCU25 KC5010 KC5025	MY5015 VP10RT VP20RT	G10E AC510U AC8025P AC5015S AC520U AC5025S AC530U AC1030U AC425K	AH8005 GH130 AH725 AH710 SH730 GH730 AH6235 T515 TH10	A65 A66N PT600M PV7040 PR905 TN60 TC40 KW10 GW15 PR1215	NC5330 PC5300 A30 NC6110 PC9030 PC215K PC6510	IC20 IC1007 IC5010 IC428, IC418 IC807, IC907 IC9015 IC808(908) IC8250 IC250(950) IC228
N	K10 TT9080 TT9030	H13A GC1005 GC1105 GC1115 GC1025 GC1225	WK1	890 883 HX	K313 KCU10 KC5010 KC5025 KCU25 KCM35B	RT9010 RT9020	ACZ150 G10E AC530U	TH10 KC05F KS05F TH10 SH725 SH730	KPD001 KPD010 KW10 GW15 PDL025	G10E H01 A30 PC215K	ID5 IC20 IC08 IC228 IC28
S	K10 TT3010 TT9080 TT9030 TT4430 TT3020 TT8020	GC1005 GC1105 S205 GC1115 GC1025 GC1225 GC1145	WSM13S WSM23S WSM33G WSM33S WSM43S	TGH1050 890 CP200 TGS2050 HX CP500 883 CP600 CBN010 CBN170 CBN170C	K313 KCU10 KC5010 KCU25 KC5025	RT9010 MP9015 RT9020 MP9025 VP10RT VP20RT	AC425K G10E AC5015S AC5025S AC1030U	AH8005 AH905 GH130 AH725 AH7025 SH725 SH730 TH10	KPD001 KPD010 KW10 GW15	PC5300 PC3035	IC804 IC806 IC1007 IC807, IC907 IC07 IC20 IC08 IC808(908) IC1008 IC830(928)
H	TT6080	CB7015 CB7115	WAK20	CBN10 TGH1050 T350M TGS2050 HX CBN200 CP200 890 883	KCU10 KC5010 KCU25	BC8110	H10	BXA10 BX360	KBN510 KBN525 A65 A66N PT600M		IB50 IC428 IC1007 IC807, IC907 IC808(908)

Grade Comparison Table

Cermet grades

ISO class	TaeguTec	Sandvik	Kennametal	Sumitomo	Kyocera	Tungaloy	Mitsubishi	Korloy	Seco	NTK	Ceramtec
P01	"PV3010 PV3030"		KT315	T110A T1000A T1500Z	PV720 PV710 PV7040 CCX	NS520	AP25N NX1010 NX2525	CC1500		T3N	SC35
P10	CT3000	CT5005 CT5015 CT525 GC1525	KT5020 KT125 KT150	T1500A T1200A T2000Z	TN60 TN610 TN620 TN6020 TC40N	AT9530 GT9530 J9530	MP3025 UP35N	CC2500 CN1500 CN2000	TP1030 CMP CM	T15 C30 Q50	SC15 SC8015 SC7035 SC40
M01	PV3010 PV3030		KT315		PV30 TN30 PV7010	NS520	AP25N NX2525	CC1500		T3N	SC35
M10	CT3000	CT5005 CT5015 CT525 GC1525	KT5020 KT125 KT150	T1500A	PV7020 PV60 TN6010 TN6020 TN60	AT9530 GT9530 J9530	MP3025 UP35N	CC2500 CN1500 CN2000	TP1030 CMP CM	T15 C30 Q50	SC15 SC8015 SC7035 SC40
K01	PV3030		KT315	T1000A	PV30 PV7005 PV7020 PV60	NS520	AP25 NX2525	CN1500	CM	T3N Q15	SC8015
K10	CT3000	CT5015	KT125		TN60 TN6020	AT9530 GT9530 J9530 NS9530		CN2500	C15M	T15 Z15 C7Z	SC7015

Grade Comparison Table

▶ Ceramic grades

ISO class	Composition	TaeguTec	Sandvik	Kennametal	Ceramtec	NTK	Kyocera	Sumitomo	Tungaloy
K	Al_2O_3, ZrO_2	AW120	CC620		SN60 SN80	HC1 HW2	KA30		TZ120
	Al_2O_3, TiC	AB30	CC650	KY1615	SH2 SH4	HC2 HC5 HC6	A65	NB90S NB90M	LX21
	Si_3N_4, Al_2O_3, Y_2O_3, AlN	AS500		KY1310 KY3000	SL506 SL508 SL606 SL608	SX9			
	Si_3N_4, ZrO_2, Al_2O_3, Y_2O_3	AS10	CC6090 CC6190	KY1320 KY3500 KYK10	SL500 SL808	SX1 SX6 SX8	KS6000 KS6050	SN2000K SN2100K NS260	FX105 CX710
	CVD coated	SC10	CC1690	KY3400 KYK25	SL550C SL554C SL654C SL658C SL854C SL858C	SP2 SP9	CS7050	NS260C	CXC73
H	Al_2O_3, TiCN	AB20	CC6050		SH2 SH4	HC2 HC5 HC7			LX10
	PVD coated	AB2010	CC670	KY4400		ZC4 ZC7	A66N PT600M	NB100C	LX11
S	Al_2O_3, SiC whisker	TC430	CC6060 CC6065 CC6160	KY4300		WA1 WA5		WX2000	
	Si_3N_4, TiN	TC3020 TC3030	CC6220 CC6230	KY2100 KY1540 KYS30 KYS25 KYS30P		SX3 SX5 SX7 SX9	KS6030 KS6040	SN1000S SN2000S	TS200 TS300

Grade Comparison Table

▶ CBN grades

ISO class	TaeguTec	Iscar	Tungaloy	Sumitomo	Sandvik	Kennametal	Mitsubishi	Kyocera	Seco
H	TB610	IB10H IB50	BX310	BN1000 BNX10	CB7105 CB7015	KB1610	MBC010	KBN510	CBN010
		IB10HC	BXC30 BXA30	BNC80 BNC100 BNC2010		KB5610 KB9610	MB8025 BC8105 BC8210	KBN10M KBN10C KBN25C	CBN050C CH0550
	TB2015 TB650	IB20H IB55	BX330 BX530	BN250 BN2000 BNX20	CB7115 CB7025	KB1625	MB810	KBN525	CBN100
		IB25HA	BXM10 BXC30 BXA40	BNC160 BNC2020		KB5625	MB820 BC8110 BC8220	KBN05M KBN25M	CBN160C CH2540
	TB670	IB25HC	BX360 BX380	BNX25 BN350	CB7125 CB7135 CB50 CB7525 CB7925		MB825 MB8025 BC8120 BC8220		CBN150 CBN170
			BXM20 BXA20 BXA40 BXC50	BNC200 BNC300			MB835 BC8020 BC8130	KBN30M	CBN060K CBN100P
K	TB7015 TB730	IB90	BX930 BX850 BX950	BN500 BN7500 BN7000	CB50 CB7525	KB1630 KB1345	MB4020 MB710	KBN475 KBN60M KBN65B	CBN200
		IB05S IB10S	BX470 BX480	BN700 BNC500	CB7050	KB5630 KB9640	MB730	KBN65M KBN70M KBN570	CH3515
	KB90A TB7020		BX90S BXC90	BNS800	CB7925		MBS140	KBN900	CBN200 CBN300 CBN300P CBN350 CBN400C

Grade Comparison Table

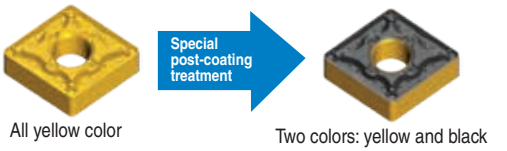
PCD grades

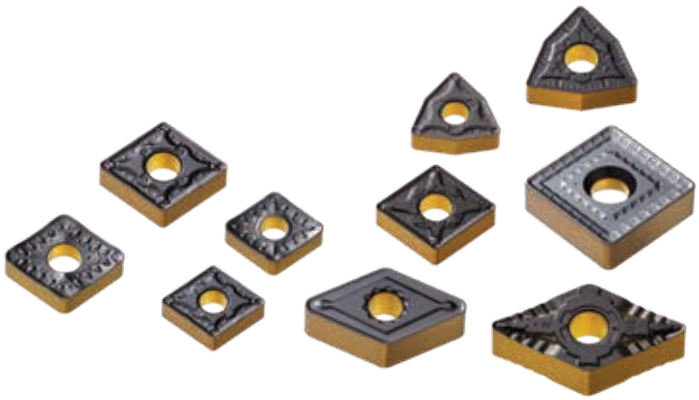
ISO class	TaeguTec	Iscar	Tungaloy	Sumitomo	Sandvik	Kennametal	Mitsubishi	Kyocera	Seco	NTK
N01-N10	TC1010	ID8	DX180 DX160	DA90		KD1405	MD203	KPD230	PCD30M PCD30	
N05-N20	TC1020	ID5	DX140	DA150	CD10	KD1400	MD220	KPD010	PCD20	PD1
N15-N30	TC1030		DX120 DX110	DA2200 DA1000		KD1425	MD205	KPD001	PCD10 PCD05	PD2

SFEED-RUSH Grades

Turning SFEED-RUSH grades

SFEED-RUSH grades have upgraded toughness and chipping resistance through special post-coating treatment process of CVD grades. Through the post-coating treatment process, single color inserts have been transformed into two different colors, on the side and the top (see the illustrations below).

ISO class	Grade	ISO Rage	Insert color
P	TT8105B	P05-P15	
	TT8115B	P05-P20	
	TT8125B	P15-P30	
	TT8135B	P25-P40	



Turning Chip Breaker Comparison Table

▶ Negative insert

ISO classfication		Cutting mode	TaeguTec	Sandvik	Kennametal	Seco
P	Double sided	Finishing with wiper	WS, WA	WF	FW	W-MF2
		Medium with wiper	WT	WMX, WM	MW, RW	W-M3, W-M6, W-MF5
		Finishing	FLP, FA, FS,GG-FU FX		FF, FS	FF1, FF2
			FLP, FG FM	QF	FP MP-K, LF, FN	MF2
		Semi-finishing	MLP, FC, FT	PF, XF		
		Medium	VF, DNUX	K		UX
			MLP, MC		MN	MR3
			MGP, PC MM	PM, XM QM	P	MF3 MF5, M3
			MGP, MT	HM, XMR	MP RP, RM	
			MGP, MG-		MG-, UN	M4 MR4
		Roughing	RGP, RT	PR	RN	M5 MR7, M6
		Low carbon steel	FLP, FS,GG-FU MLP, FC	WL, LC		
	Single sided	Heavy	RX	PR	RM	
			RH	QR MR	MR, RP	R6, RR9 R4, R5, 37 RR6
			HT, HD	HR, 31	RH	R8, 56, 57 R7
			HY, HZ			
M	Double sided	Finishing	EA, SF	MF	FP	MF1
		Medium	EM, ML	MM	MP, UP, MR	MF4
		Roughing	ET	MR MM-MR	RP	MR6, MF5 MM-RR6
K	Double sided	Finishing-medium	MT	KF KM	FN	MF5 M4
		Medium	MG-		MG-,RN	M5
		Roughing	KT RT	KR	UN	MR7
N	Double sided	Medium	ML	QM, 23	MS, MP	
S	Double sided	Finishing	EA, SF	SF	GG-FS	MF1
		Medium	GG-ML MGS, MP,MK	SGF, GP- QM, SM, 23	MS, GP-K UP, P	M1 MF4, MF5
		Roughing	ET	SR, SMR	RP	M5, MR3, MR4

Walter	Mitsubishi	Sumitomo	Kyocera	Tungaloy	Korloy	Iscar
FW5, NF	SW	LU-W, SE-W	WP	FW, AFW	VW	WF
MW5, NM	MW	GU-W	WQ, WE	SW, ASW	LW	WG
FP5 FV5	FH, FP FS, FY	FA FL	DP, GP, PP VF	TF, 01, CB ZF	VL	SF
NF3, NF4	LP SH	SP, SU, FE	 HQ	NS, 11 TS, AS, TSF, TQ PS	 VF VQ	NF, F3P
NS6	SA	LU SE, SX	CQ, PQ CJ	SS, NM ZM	VB, VC, LP, CP	
MV5	ES	GX, HM		S		
MP3			GS			
MP5 MM5, NM4	MP, MV MA	GU UG	PG PS	PM TM, AM	MP, VM	M3P TF
MU5, NM6 NM9	MH	UX, GE	HS CS		HM, GM	GN
MG-	MG-	UZ	MG- C	33, 37, 38 DM, MG-	B25	MG-
NR4, RP5 RP7	RP GH	ME MU, MX	PT, GT PH, HT	 TH	 GR	 NR, R3P
	FS, FY SY	FL	XF, XP,XP-T XQ, XS	17	VL	
NRF			PX	 THS		
NR6	HZ	MP HG HP	 HX	TRS 57	 GH	R3P NM
 NRR	HCS HX, HBS, HL	HF HU		65 TU	 VT	
	HV, HDS, HXD, HM	HW			VH	T3P
FM5, NF4	FS, LM	SU	MQ, GU	SF	MP, VM	SF, F3M
MM5, NM4	MS, GM, MA	EX, UP, GU	MS, MU, SK	SS, S	MM	TF, VL, M3M
RM5, NR4 NRS	RM	MU, HM	HU	SM, SH	RM	NR, R3M
 NM, MK5	LK MA, MK	 UZ	KQ MG-	CF CM	 MP	 M3P, GN
NM5, RK5	MG-, GK		KG, C	MG-		MG-
MV7, RK7	 GH, RK	 GZ	KH ZS, GC	 CH	B25, MK, VR RK, -MA	
MN3	MJ	UP, GX, AG	A3, AH	P, 28	HA	PP
NF4	FJ, LS	EF	MQ	HRF	VP1	SF, F3S
NFT	MJ	SU, UP	TK		VP2	PP
NMS, MS3, NMT	MA, MS	EG, EX	MS, MU, SQ	HRM, HMM, SDM	VP3	TF, VL
RM5,NRS,NRT	GJ, RS	MU			VP4	MR

Turning Chip Breaker Comparison Table

▶ Positive insert

ISO classfication	Cutting mode	TaeguTec	Sandvik	Kennametal	Seco
P	Medium with wiper	WT	WM	MW	W-F2, W-M3
	Finishing	FA FX	PF, UF	UF, 11, GM	FF1
		GT-SL GT-SA, GT-SM			
		FG	UM XF	FP LF	F1
	Medium	PC, GT-SH FM	PM	MP	
		GT-SH MT	XM PR, UR XR	MF	F2, MF2, M5
		PMR-	PMR-	PMR-	
N	Finishing - Medium - G Tol.	GT-SA, FL	AL	HP	AL
S	Finishing - G Tol.	GT-FGS, SA	GT-UM	GT-HP, LF	GT-F1
	Finishing	FG	MF, UM	FP, LF	F1, F2
	Medium	PC	MM		MF2

Walter	Mitsubishi	Sumitomo	Kyocera	Tungaloy	Korloy	Iscar
MW4, PM	MW					WG
PF4, FP4	FV FP	LU FB, FP	XP GK, GP, DP VF	01, PSF	VL, FP	F3P PF
FV4	SMG	FC	CF GF CK	JS	FS VP1	
PS5	LP, SV SQ, SV	FK LB, SU SC, SK	XQ GK		VF HMP	SM 16, GT-
MP4, FP6, MV4		GU UG	GQ HQ	PSS PS	MP	
PM5 MP6, E47, MT-	MQ, MV MT- G	SF, MU	MT-	PM	C25	14, 17 19, M3P
PMR-	PMR-	UJ	G, PMR-	23		
FN2, MN2, GW-FS-1	AZ	AW, AG, AY	AH	AL	AK, AM, AR	AF, AS
GT-FM2, FM4, FM6, PF2	GT-FJ, LS, FS	GT-SI			GT-VP1, MS	
MM4, PF4, PS5	FM, LM, SV	SU	MQ	PSF	VL	PF, F3M
RM4, PM5	MM, MV	MU		PSS, PS, PM	MP	

Hardness Conversion Table

Vickers 50kg HV	Brinell HB10mm ball LOAD 3000kgf		Rockwell				Shore's HS	Tensile strength N/mm^2 (kgf/mm^2)
	Standard ball	Tungsten carbide ball	A scale 60kgf diamond brale HRA	B scale 100kgf 1/16in ball HRB	C scale 150kgf diamond brale HRC	D scale 100kgf diamond brale HRD		
1900			93.1		80.5			
1800			92.6		79.2			
1700			91.9		77.9			
1600			91.3		76.6			
1500			90.5		75.3			
1450			90.1		74.6			
1400			89.6		74.0			
1350			89.1		73.4			
1300			88.7		72.7			
1250			88.3		72.1			
1200			87.9		71.5			
1150			87.5		70.9			
1100			87.1		70.3			
1050			86.6		69.6			
1000			86.2		68.9			
940			85.6		68.0	76.9	97	
920			85.3		67.5	76.5	96	
900			85.0		67.0	76.1	95	
880		(767)	84.7		66.4	75.7	93	
860		(757)	84.4		65.9	75.3	92	
840		(745)	84.1		65.3	74.8	91	
820		(733)	83.8		64.7	74.3	90	
800		(722)	83.4		64.0	74.8	88	
780		(710)	83.0		63.3	73.3	87	
760		(698)	82.6		62.5	72.6	86	
740		(684)	82.2		61.8	72.1	84	
720		(670)	81.8		61.0	71.5	83	
700		(656)	81.3		60.1	70.8	81	
690		(647)	81.1		59.7	70.5		
680		(638)	80.8		59.2	70.1	80	
670		630	80.6		58.8	69.8		
660		620	80.3		58.3	69.4	79	
650		611	80.0		57.8	69.0		
640		601	79.8		57.3	68.7	77	2205(210)
630		591	79.5		56.8	68.3		2020(206)
620		582	79.2		56.3	67.9	75	1985(202)
610		573	78.9		55.7	67.5		1950(199)
600		564	78.6		55.2	67.0	74	1905(194)
590		554	78.4		54.7	66.7		1860(190)
580		515	78.0		54.1	66.2	72	1825(186)
570		535	77.8		53.6	65.8		1795(183)
560		525	77.4		53.0	65.4	71	1750(179)
550	(505)	517	77.0		52.3	64.8		1750(174)
540	(496)	507	76.7		51.7	64.4	69	1660(169)
530	(488)	497	76.4		51.1	66.2		1620(165)
520	(480)	488	76.1		50.5	63.5	67	1570(160)
510	(473)	479	75.7		49.8	62.9		1530(156)
500	(465)	471	75.3		49.1	62.2	66	1459(153)
490	(456)	460	74.9		48.4	61.6		1460(149)
480	488	452	74.5		47.7	61.3	64	1410(144)

▸ Note: Gray figures come from ASTM E 140 table (Calculated by SAE-ASM-ASTM together)

Vickers 50kg HV	Brinell HB10mm ball LOAD 3000kgf		Rockwell				Shore's HS	Tensile strength N/mm² (kgf/mm²)
	Standard ball	Tungsten carbide ball	A scale 60kgf diamond brale HRA	B scale 100kgf 1/16in ball HRB	C scale 150kgf diamond brale HRC	D scale 100kgf diamond brale HRD		
470	441	442	74.1		46.9	60.7		1570(160)
460	433	433	73.6		46.1	60.1	62	1530(156)
450	425	425	73.3		45.3	59.4		1459(153)
440	415	415	72.8		44.5	58.8	59	1460(149)
430	405	405	72.3		43.6	58.2		1410(144)
420	397	397	71.8		42.7	57.5	57	1370(140)
410	388	388	71.4		41.8	56.8		1330(136)
400	379	379	70.8		40.8	56.0	55	1290(131)
390	369	369	70.3		39.8	55.2		1240(127)
380	360	360	69.8	(110.0)	38.8	54.4	52	1250(123)
370	350	350	69.2		37.7	53.6		1170(120)
360	341	341	68.7	(109.0)	36.6	52.8	50	1130(115)
350	331	331	68.1		35.5	51.9		1095(112)
340	322	322	67.6	(108.0)	34.4	51.1	47	1070(109)
330	313	313	67.0		33.3	50.2		1035(105)
320	303	303	66.4	(107.0)	32.2	49.4	45	1005(103)
310	294	294	65.8		31.0	48.4		980 (100)
300	284	284	65.2	(105.5)	29.8	47.5	42	950 (97)
295	280	280	64.8		29.2	47.1		935 (96)
290	275	275	64.5	(104.5)	28.5	46.5	41	915 (94)
285	270	270	64.2		27.8	46.0		905 (92)
280	265	265	63.8	(103.5)	27.1	45.3	40	890 (91)
275	261	261	63.5		26.4	44.9		875 (89)
270	256	256	63.1	(102.0)	25.6	44.3	38	855 (87)
265	252	252	62.7		24.8	43.7		840 (86)
260	247	247	62.4	(101.0)	24.0	43.1	37	825 (84)
255	243	243	62.0		23.1	42.2		805 (82)
250	238	238	61.6	99.5	22.2	41.7	36	795 (81)
245	233	233	61.2		21.3	41.1		780 (79)
240	228	228	60.7	98.1	20.3	40.3	34	765 (78)
230	219	219		96.7	(18.0)		33	730 (75)
220	209	209		95.0	(15.7)		32	695 (71)
210	200	200		93.4	(13.4)		30	670 (68)
200	190	190		91.5	(11.0)		29	635 (65)
190	181	181		89.5	(8.5)		28	605 (62)
180	171	171		87.1	(6.0)		26	580 (59)
170	162	162		85.0	(3.0)		25	545 (56)
160	152	152		81.7	(0.0)		24	515 (53)
150	143	143		78.7			22	490 (50)
140	133	133		75.0			21	455 (45)
130	124	124		71.2			20	425 (44)
127	121			69.8			19	(42)
122	116			67.6			18	(41)
117	111			65.7			15	(39)

▸ Note: Gray figures come from ASTM E 140 table (Calculated by SAE-ASM-ASTM together)

Material Conversion Table

According to VDI 3323 standard

Material group	AISI/SAE	Material No. DIN		BS EN	AFNOR
1	A 366 (1012) 1008	0.0030	C10	040 A 10 045 M 10 1449 10 CS	AF 34 C 10 XC 10
1		1.0028	Ust 34-2 (S250G1T)		A 34-2
1		1.0034	RSt 34-2 (S250G2T)	1449 34/20 HR, HS, CR, CS	A 34-2 NE
1		1.0035	St185 (Fe 310-0) St 33	Fe 310-0 1449 15 HR, HS	A 33
1	A 570 Gr. 33,36	1.0036	S235JRG1 (Fe 360 B) Ust 37-2	Fe 360 B 4360-40 B	
1		1.0037	S235JR (Fe 360 B) St 37-2	Fe 360 B 4360-40 B	E 24-2
1	1115	1.0038	GS-CK16	030A04 1A	
1	A 570 Gr. 40	1.0044	S275JR (Fe 430 B) St44-2	Fe 430 B FN 1449 43/25 HR, HS 4360-43 B	E 28-2
1		1.0045	S355JR	4360-50 B	E 36-2
1	A 570 Gr.50 A 572 Gr.50	1.0050	E295 (Fe 490-2) St 50-2	Fe 490-2 FN 4360-50 B	A 50-2
1	A 572 Gr. 65	1.0060	E335 (Fe 590-2) St 60-2	Fe 60-2 4360-55 E; 55 C	A 60-2
1		1.0060	St 60-2		
1		1.0070	E360 (Fe 690-2) St 70-2	Fe 690-2 FN	A 70-2
1		1.0112	P235S	1501-164-360B LT20	A37AP
1		1.0114	S235JU;St 37-3 U	4360-40C	E 24-3
1	A 284 Gr.D A 573 Gr.58 A 570 Gr 36;C A 611 Gr. C	1.0116	S235J2G3 (Fe 360 D 1) St 37-3	Fe 360 D1 FF 1449 37/23 CR 4360-40 D	E 24-3 E 24-4
1		1.0130	P265S	1501-164-400B LT 20	A 42 AP
1		1.0143	S275J0; St 44-3 U	4360-43C	E 28-3

SS	UNI	UNE	JIS	KS	GOST
	C 10 1 C 10	F.1511 F.151A	S 10C	SM 10C	10
	Fe 330,Fe 330 B FU		SS 330	SS 330	
	Fe 330 B FU				St2sp
1300	Fe 320	Fe 310-0			St0
1311 1312	FE37BFU	AE 235 B Fe 360 B			16D, 18Kp St3Kp
1311	Fe 360 B 1449 37/23 HR	AE 235 B Fe 360 B	STKM 12A;C	STKM 12A;C	
1325	Fe 330,Fe 330 B FU		SS 330	SS 330	
1412	Fe 430 B Fe 430 B FN	AE 275 B Fe 430 B FN	SM 400 A;B;C	SM 400 A;B;C	St4ps; sp
2172	Fe 510 B	AE 355 B			
1550 2172	Fe 490	a 490-2 Fe 490-2 FN	SS 490	SS 490	ST5ps; sp
1650	Fe 60-2 Fe 590	A 590-2 Fe 590-2 FN	SM 570	SM 570	St6ps; sp
	Fe 60-2				
1655	Fe 70-2 Fe 690	A 690-2 Fe 690-2 FN			
	Fe 360 C	AE 235 C			
	Fe 360 C	AE 235 C			
1312 1313	Fe 360 D1 FF Fe 360 C FN Fe 360 D FF Fe 37-2	AE 235 D Fe 360 D1 FF			St3kp; ps; sp 16D
		SPH 265			
1414-01	Fe 430 D	AE 275 D			

Material Conversion Table

According to VDI 3323 standard

Material group	AISI/SAE	Material No. DIN		BS EN	AFNOR
1	A 573 Gr. 70 A 611 Gr.D	1.0144	S275J2G3 (Fe 430 D 1) St 44-3	Fe 430 D1 FF 4360-43 C; 43 D	E 28-3 E 28-4
1		1.0149	S275JOH; RoSt 44-2	4360-43C	
1		1.0226	DX51D; St 02 Z	Z2	GC
1	M 1010	1.0301	C10	040 A 10 045 M 10 1449 10 CS	AF 34 C 10 XC 10
1	A 621 (1008)	1.0330	DC 01 St 2; St 12	1449 4 CR 1449 3 CS	 TE
1	A 619 (1008)	1.0333	Ust 3 (DC03G1) Ust 13	1449 2 CR;3 CR	E
1	A 621 (1008)	1.0334	UStW 23 (DD12G1)		SC
1	A 622 (1008)	1.0335	DD13; StW 24	1449 1 HR	3C
1	A 620 (1008)	1.0338	DC04 St4; St 14	1449 1 CR;2 CR	ES
1	A 516 Gr. 65; 55 A 515 Gr. 65;55 A 414 Gr. C A 442 Gr.55	1.0345	P235GH HI	1501 Gr. 141-360 1501 Gr. 161-360; 151-360 1501 Gr. 161-400; 154-360 1501 Gr. 164-360; 161-360	A 37 CP;AP
1	(M) 1020 M 1023	1.0402	C22	055 M 15, 070 M 20 2C/2D 1499 22 HS, CS	AF 42 C 20; XC 25;1 C 22
1	1020	1.0402	C22	050A20 2C/2D	CC20
1	1020;1023	1.0402	C22	055 M 15, 070 M 20 2C	AF 42 C 20; XC 25;1 C 22
1		1.0425	P265GH H II	1501 Gr. 161-400;151-400 1501 Gr. 164-360; 161-400 1501 Gr. 164-400;154-400	A 42 CP; AP
1	A27 65-35	1.0443	GS-45	A1	E 23-45 M
1		1.0539	S355NH;StE 335		TSE 355-4
1		1.0545	S355N; StE 355	4360-50E	E 355 R
1		1.0546	S355NL;TStE 355	4360-50EE	E 355 FP
1		1.0547	S355JOH	4360-50C	TSE 355-3
1		1.0549	S355 NLH;TStE 355		
1		1.0553	S355JO;St 52-3U	4360-50C	E 36-3

SS	UNI	UNE	JIS	KS	GOST
1411, 1412 1414	Fe 430 B, Fe 430 C (FN) Fe 430 D (FF)	AE 275 D Fe 430 D1 FF	SM 400 A;B;C	SM 400 A;B;C	St4kp> ps; sp
1412-04	Fe 430 C	Fe 430 C			
1151 10	FeP 02 G	FeP 02 G			
	C 10 1 C 10	F.1511 F.151.A	S 10C	SM 10C	10
1142	FeP 00 FeP 01	AP 11	SPHD	SPHD	15kp
	FeP 02	AP 02	SPCD	SPCD	
	FeP 12	AP 12	SPHE	SPHE	10kp
	FeP 13	AP 13	SPHE	SPHE	08kp
1147	FeP 04	AP 04	SPCE	SPCE	08jU; JUA
1331 1330	FeE235, Fe 360 1 KW;KG Fe 360 2 KW;KG	A 37 RC I RA II	SGV 410, SGV 450, SGV 48, SPV 450;SPV 480	SGV 410, SGV 450, SGV 480, SPPV 450;SPPV 480	
1450	C 20 C 21, C 25	1 C 22 F.112	S20C	SM 20C	20
1450	C20, C21	F.112	S22C	SM 22C	20
1450	C 20; C 21;C 25	1 C 22F.112	S 20 C;S 22 C	SM 20 C;SM 22C	
1431 1430 1432	Fe 410 1 KW; KG; KT Fe 410 2 KW; KG	A 42 RC I A 42 RC II	SPV 315; SPV 355 SG 295; SGV 410 SGV 450; SGV 480	SPPV 315; SPPV 355 SG 295; SGV 410 SGV 450; SGV 480	16K 20K
1305					
2134-04	Fe 510 B	Fe 355 KGN			
2334-01	FeE 355 KG	AE 355 KG			
2135-01	FeE 355 KT	AE 355 KT			
2172-04	Fe 510 C	Fe 510 C			
2135	Fe 510 D	FeE 355 KTM			
	Fe 510 C				

Material Conversion Table

According to VDI 3323 standard

Material group	AISI/SAE	Material No. DIN		BS EN	AFNOR
1	A 633 Gr.C A 588	1.0562	P355N StE 355	1501 Gr.225-490A LT 20	FeE 355 KG N E 355 R/FP; A 510 AP
1		1.0565	P355NH; WStE 355	1501-225-490B LT 20	A 510 AP
1		1.0566	P355NL1; TStE 355	1501-225-490A LT 50	A 510 FP
1	1	1.0570	S355J2G3 St 52-3	Fe 510 D1 FF 1449 50/35 HR>HS 4360-50 D	E 36-3 E 36-4
1	1213	1.0715	9 SMn 28 (1SMn30)	230 M 07	S 250
1	1213	1.0715	9 SMn 28	230 M 07	S 250
1	12 L 13	1.0718	9 SMnPb 28 (11SMnPb30)		S 250 Pb
1	1108 1109	1.0721	10 S 20	(210 M 15)	10S20 10F 2
1	11 L 08	1.0722	10 SPb 20		10PbF 2
1	11 L 08	1.0722	10 SPb 20		10PbF 2
1	1215	1.0736	9 SMn 36 11SMn37)		S 300
1	12 L 14	1.0737	9 SMnPb 36 (11SMnPb37)		
1		1.0972	S315MC; QStE 300 TM	1501-40F30	E 315 D
1		1.0976	S355MC; QStE 360 TM	1501-43F35	E 355 D
1		1.0982	S460MC; QStE 460 TM	1501-50F45	
1		1.0984	S500MC; QStE 500 TM		E 490 D
1		1.0986	S500MC; QStE 500 TM	1501 - 60F55	E 560 D
1	1010	1.1121	CK 10 (C10E)	040 A 10	XC 10
1		1.1121	St 37-1	4360 40 A	
1	1015	1.1141	CK 15 (C15E)	040 A 15 32C 080 M 15	XC 12 XC 15 XC 18
1	1020 1023	1.1151	C22E CK 22	055 M 15 (070 M 20)	2 C 22 XC 18 XC 25
1	D 3	1.2080	X 210 Cr 12	BD 3	Z 200 C 12

SS	UNI	UNE	JIS	KS	GOST
2106	FeE 355 KG;KW	AEE 355 KG;DD	SM 490 A;B;C; YA;YB	SM 490 A;B;C; YA;YB	15GF
2106	FeE 355-2				
2107-01	FeE 355-3				
2132, 2133 2134, 2174	17GS 17G1S	AE 355 D Fe 510, D1 FF	SM 490 A;B;C; YA;YB	SM 490 A;B;C; YA;YB	17GS 17G1S
1912	CF SMn 28	F.2111 - 11 SMn 28	SUM 22	SUM 22	
1912	CF 9 SMn 28	11 SMn 28	SUM 22	SUM 22	
1914	CF 9 SMnPb 28	F.2112-11 SMnPb 28	SUM 22 L SUM 23 L, SUM 24 L	SUM 22 L SUM 23 L, SUM 24 L	
	CF 10 S 20	F. 2121 - 10 S 20			
	CF 10 SPb 20	F.2122-10 SPb 20			
	CF 10 SPb 20	10 SPb 20			
	CF 9 Mn 36	F.2113 - 12 SMn 35	SUM25	SUM25	
2642	FeE 355TM				
2662	FeE 490 TM				
	FeE 560 TM				
1265	C 10, 2 C 10 2 C 15	F-1510-C 10 K	S 9 CK S 10 C	S 9 CK S 10 C	08;10
1300					
1370	C 15 C 16	F.1110-C 15 F.1511-C 16 K	S 15 S 15 CK	SM 15C SM 15CK	15
1450	C 20 C 25	F.1120-C 25 K	S 20 C, S 20 CK S 22 C	SM 20 C, SM20 CK SM22 C	20
2642					

Material Conversion Table

According to VDI 3323 standard

Material group	AISI/SAE	Material No. DIN		BS EN	AFNOR
1	A36		St 44-2	4360 43 A	NFA 35-501 E 28
1			StE 320-3Z	1 501 160	
1	A572-60	1.8900	StE 380	4360 55 E	
2	(M) 1025	1.0406	C 25	070 M 26	1 C 25
2		1.0416	GS-38		20-400 M
2	A 537 Cl.1 A 414 Gr. G A 612	1.0473	P355GH	19 Mn 6	A 52 CP
2	1035	1.0501	C 35	080 A 32, 080 A 35 080 M 36, 1449 40 CS	1 C 35 AF 55 C 35 XC 38
2	1045	1.0503	CF 45 (C45G)	060 A 47 080 M 46	XC 42 H 1 TS
2	1040	1.0511	C 40	080 M 40	1 C 40 AF 60 C 40
2		1.0540	C 50		
2	A27 70-36	1.0551	GS-52	A2	280-480 M
2	A148 80-40	1.0553	GS-60	A3	320-560 M
2	A738	1.0577	S355J2G4 (Fe 510 D 2)	Fe 510 D2 FF 1501 Gr.224-460 1501 Gr. 224-490	A 52 FP
2	1140	1.0726	35 S 20	212 M 36 8M	35MF 6
2	1146	1.0727	45 S 20 (46S20)		45 MF 4
2	1035 1041	1.1157	40Mn4	150 M 36 15	35 M 5 40 M 5
2	1025	1.1158	C25E CK 25	(070 M 25)	2 C 25 XC 25
2	1536	1.1166	34Mn5		
2	1330	1.1170	28Mn6	(150 M 28), (150 M 18)	20 M 5, 28 Mn 6
2	1330	1.1170	28Mn6	150 M 5	20 M 5
2	1330	1.1170	28Mn6	14A	20 M 5
2		1.1178	C30E; CK 30	080M30	XC 32

SS	UNI	UNE	JIS	KS	GOST
1411					
1421					
2145	FeE390KG		S 25C	SM 25C	
	C 25 1 C 25				
1306					
2101 2102	Fe E 355-2	A 52 RC I RA II	SGV 410 SGV 450 SGV 480	SGV 410 SGV 450 SGV 480	
1572 1550	C 35 1 C 35	F.113	S35C	SM35C	35
1672	C 43 C 46		S 45 C	SM 45 C	45
	C 40	1 C 40	S 40 C	SM 40 C	
1674	C 50	1 C 50			
1505					
1606					
2107		A 52 RB II AE 355 D			
1957		F.210.G			
1973					
			S 09CK	SMn 433	
C 25	F.1120 - C 25 K	S 25 C S 28 C	S 25 C	SM 25 C	
	TO.B	SMn 433 H			
1421	C 28 Mn	28 Mn 6	SCMn 1	SCMn 1	30G
2145					
	C 28 Mn		SCMn 1	SCMn 1	
	C 30	2 C 30			

Material Conversion Table

According to VDI 3323 standard

Material group	AISI/SAE	Material No. DIN		BS EN	AFNOR
2	1035	1.1180	C35R Cm 35	080 A 35	3 C 35 XC 32
2	1035 1038	1.1181	C35E CK 35	080 A 35 (080 M 36)	2 C 35, XC 32 XC 38 H 1
2	1035	1.1181	C35E CK 35	080 A 35 (080 M 36)	
2	1042	1.1191	GS- Ck 45	080 A 46	XC 45
2	1049 1050	1.1206	C50E CK 50	080 M 50	2 C 50 XC 48 H 1; XC 50 H 1
2	1050 1055	1.1213	Cf 53 (C53G)	070 M 55	XC 48 H TS
2	4520	1.5423	22Mo4	1503-245-420	
3		1.0050	St50-2		
3	A 516 Gr.70 A 515 Gr. 70 A 414 Gr.F; G	1.0481	P295GH 17 Mn 4	1501 Gr. 224	a 48 Cp;AP
3	1043	1.0503	C35	060 A 47 080 M 46 1449 50 HS, CS	1 C 45 AF 65 C 45
3	1074	1.0614	C 76 D; D 75-2		XC 75
3	1086	1.0616	C 86 D; D 85-2		XC 80
3	1095	1.0618	C 92 D;D 95-2		XC 90
3	1036 1330	1.1165	30Mn5	120 M 36 (150 M 28)	35 M 5
3	1335	1.1167	30Mn5	150 M 36	40 M 5
3	1040	1.1186	C40E CK 40	060 A 40, 080 A 40 080 M 40	2 C 40 XC 42 H 1
3	1045	1.1191	C45E CK 45	080 M 46 060 A 47	2 C 45 XC 42 H 1 XC 45 XC 48 H 1

SS	UNI	UNE	JIS	KS	GOST
1572		F.1130-C 35 K-1			
1550 1572	C35	F.1130-C 35 K	S 35 C	SM 35 C	35
1572	C36		S 35 C	SM 35 C	
1660	C45	F-1140			
1674	C 50				50
1674	C 53		S 50 C	SM 50 C	50
	16 Mo 5 KG; KW	F.2602- 16 Mo 5	SB 450 M	SB 450 M	SB 480 M
	FE50				
	Fe 510 KG;KT;KW Fe 510-2 KG;KT;KW FeE 295	A 47 RC I RA II	SG 365, SGV 410 SGV 450 SGV 480	SG 365, SGV 410 SGV 450 SGV 480	14G2
1672 1650	C 45 1 C 45	F.114	S 45 C	SM 45 C	45
C 85					
		F.8211-30 Mn 5 f.8311-AM 30 Mn 5	SMn 433 H SCMn 2	SMn 433 H SCMn 2	27ChGSNMDTL 30GSL
2120		F. 1203-36 Mn 6 F. 8212-36 Mn 5	SMn 438 (H) SCMn 3	SMn 438 (H) SCMn 3	35G2 35GL
	C 40		S 40 C	SM 40 C	
1672	C 45 C 46	F.1140-C 45 K F.1142-C48 K	S 45 C S 48 C	S 45 C S 48 C	45

Material Conversion Table

According to VDI 3323 standard

Material group	AISI/SAE	Material No. DIN		BS	EN	AFNOR
3	1049	1.1201	C45R Cm 45	080 M 46		3 C 45 XC 42 H 1 XC 48 H 1
3		1.7242	18 CrMo 4			
3	A 387 Gr. 12 Cl	1.7337	16 CrMo 4 4			
3	A 387 Gr. 12 Cl	1.7337	16 CrMo 4 4			
3		1.7362	12 CrMo 19 5	3606-625		Z 10 CD 5.05
3	A572-60		17 MnV 6	436055 E		NFA 35-501 E 36
4	1055	1.0535	C55	070 M 55		1 C 55 AF 70 C 55
4	1060	1.0601	C60	060 A 62 1449 HS,CS	43D	1 C 60 AF 70 C 55
4	1070	1.0603	C67	080 A 67 1449 70HS		XC65
4	1074 1075	1.0605	C75	1449 80 HS		
4	1055	1.1203	C55E CK 55	060 A 57 070 M 55		2 C 5 XC 55 H 1
4	1055	1.1209	C55R Cm 55	070 M 55		3 C 55 XC 55 H 1
4	1060 1064	1.1221	C60E CK 60	060 A 62	43D	2 C 60 XC 60 H 1
4	1070	1.1231	CK 67 (C67E)	060 A 67		XC 68
4	1074 1075 1078	1.1248	CK 75 (C75E)	060 A 78		XC 75
4	1086	1.1269	CK 85 (C85E)			XC 90
4	1095	1.1274	Ck 101 (C101E)			XC 100
4	W 112	1.1663	C 125 W			Y2 120
4						
5		1.0070	St70-2			
5		1.7238	49 CrMo 4			
5		1.7701	51 CrMoV 4			

SS	UNI	UNE	JIS	KS	GOST
1660	C 45	F.1145-C 45K-1 F.1147C 48 K-1	S 50 C	SM 50 C	
18 CrMo 4					
	A 18 CrMo 4 5 KW				
	A 18 CrMo 4 5 KW				
	16 CrMo 20 5				
2142					
1655	C 55 1 C 55		S 55 C	SM 55 C	55
	C 60 1 C 60		S 58 C	SM 58 C	60(G)
	C 67				
	C 75				75
1655	C 55	F.1150-C 55 K	S 55 C	SM 55 C	55
	C 55	F.1155-C 55 K-1			
1655 1678	C 60		S 58 C	SM 58 C	60 60G, 60GA
1770	C 70				65GA 68GA , 70
774	C 75				75(A)
	C 90				85(A)
	C 100	F-5117	SUP 4	SPS 4	
1870					
2223					
	FE70-2				
	51 CrMoV 4				

Material Conversion Table

According to VDI 3323 standard

Material group	AISI/SAE	Material No. DIN		BS	EN	AFNOR
6	A573-81 65	1.0116	St 37-3	4360 40 B		E 24-U
6	A515 65	1.0345	H1	1 501 161		A 37 CP
6	5120	1.0841	St 52-3	150 M 19		20 MC 5
6	9255	1.0904	55 Si 7	250A53	45	55S7
6	9254	1.0904	55 Si 7	250 A 53		55 S 7
6	9262	1.0961	60SiCr7	1 501 161		60SC6
6	L3	1.2067	100Cr6	BL3		Y100C6
6	L1	1.2108	90 CrSi 5			
6	L2	1.2210	115CrV3			100C3
6		1.2241	51CrV4			
6		1.2311	40 CrMnMo 7			
6	4135	1.2330	35 CrMo 4	708 A 37		34 CD 4
6		1.2419	105WCr6	BO1		105WC13
6	0 1	1.2510	100 MnCrW 4	BS1		8 MO 8
6	S1	1.2542	45 WCrV7			
6	S1	1.255	60WCrV7			55WC20
6	L6	1.2713	55NiCrMoV6			55NCDV7
6	L6	1.2721	50NiCr13			55 NCV 6
6	O2	1.2842	90MnCrV8	BO2		90 MV8
6	E 50100	1.3501	100 Cr 2			55WC20
6	52100	1.3505	100Cr6	2 S 135 535 A 99	31	100 C 6
6		1.5024	46Si7			45 S 7; Y 46 7;46 SI 7
6	9255	1.5025	51Si7			51 S 7 51 Si 7
6	9255	1.5026	55Si7	251 a 58		55 S 7
6	9260	1.5027	60Si7	251 A 60 251 H 60		60 S 7
6	9260 H	1.5028	65Si7			60 S 7
6		1.5120	38 MnSi 4			

SS	UNI	UNE	JIS	KS	GOST
1312	Fe37-3				
1330					
2172	Fe 52	F-431			
2085	55Si8	56Si7			
2090		F-431			
60SiCr8	60SiCr8				
	100Cr6				
2092	105WCR 5				
	107CrV3KU				
	35 cRmO 8 KU				
2234	35CrMo4	34CrMo4	SCM435TK	SCM435TK	
2140	10WCr6	105WCr5			
2140	10WCr6	105WCr5	SKS 31	STS 31	
2710	45 WCrV8 KU	45WCrSi8			
2710	58WCr9KU				
		F.520.S	SKT 4	STF 4	
2550		f-528			
2258	100Cr6	F.1310 - 100 Cr 6	SUJ2	STB 2	SchCh 15
		F. 1451 - 46 SI 7			
2090	48 Si 7	F.1450-50 Si 7			
	50 Si 7				
2085 2090	55 Si 7	F.1440 - 56 Si 7			55S2
	60 Si 7	F. 1441 - 60 Si 7			60S2
			50 P 7 SUP 6	SPS 6	

Material Conversion Table

According to VDI 3323 standard

Material group	AISI/SAE	Material No. DIN		BS	EN	AFNOR
6	A 204 Gr.A 4017	1.5415	16Mo3 15 Mo 3	1503-243 B		15 D 3
6	4419	1.5419	20Mo4	1503-243-430		
6	A 350-LF 5	1.5622	14Ni6			16N6
6	3415	1.5732	1 NilCr10			14 NC 11
6	3310; 3314	1.5752	14NilCr14	655M13	36A	12NC15
6		1.6587	17CrNiMo6	820A16		18NCD6
6		1.6657	14NiCrMo134			
6	5515	1.7015	15 Cr 3	523 M 15		12 C 3
6	5132	1.7033	34Cr4	530A32	18B	32C4
6	5140	1.7035	41C r4	530M40	18	42C4
6	5140	1.7045	42Cr41	530 A 40		42 C 4 TS
6	5115	1.7131	16MnCr5	527 M 17		16 MC 5
6		1.7139	16MnCr5			
6	5515	1.7176	55Cr3	527 A 60	48	55 C 3
6	4135; 4137	1.7220	34CrMo4	708 Aa 37		35 CD 4
6	4142	1.7223	41CrMo4			
6	4140	1.7225	42CrMo4	708 M 0		42 CD 4
6		1.7228	55NiCrMoV6G	823M30	33	
6		1.7262	15CrMo5			12 CD 4
6		1.7321	20 mOcR 4			
6	ASTM A182 F-12	1.7335	13CrMo4 4	1501-620Gr27		
6	A 182-F11;12	1.7335	13 CrMo 4 4	1 501 620 Gr. 27		15 CD 4.5
6	ASTM A 182 F.22	1.7380	10CrMo9 10	1501-622gR31; 45		
6	A182 F-22	1.7380	10 CrMo 9 10	1501-622		12 CD 9.10
6		1.7715	14MoV6 3	1503-660-440		
6	A355A	1.8509	41CrAlMo 7	905 M 39	41B	40 CAD 6.12
7	A570.36	1.0038	S235JRG2 (Fe 360 B) RSt 37-2	Fe 360 B FU 1449 27/23 CR 4360-40 B		E 24-2NE
7	3135	1.5710	36NiCr6	640A35		35NC6

SS	UNI	UNE	JIS	KS	GOST
2912	16Mo3(KG;KW)	F. 2601 - 16 Mo 3			
-2512	G 20 Mo 5 G 22 Mo5		SCPH 11	SCPH 11	
14 Ni 6 KG;KT	F.2641 - 15 Ni 6				
16NiCr11	15NiCr11	SNC415(H)			
		SNC815(H)			
	14NiCrMo13				
	14NiCrMo131				
			SCr415(H)	SCr415(H)	
	34Cr4(KB)	35Cr4	SCr430(H)	SCr430(H)	
	41Cr4	42Cr4	SCr440(H)	SCr440(H)	
2245	41Cr4	42Cr4	SCr440	SCr440	
2511	16MnCr5	16MnCr5			
2127					
2253			SUP9(A)	SPS 9(A)	
2234					
	41CrMo4	42CrMo4	SNB 22-1	SNB 22-1	
2244					
2512	653M31				
2216		12CrMo4			
2625					
	14CrMo4 5	14CrMo45			
2216		12CrMo4	SCM415(H)	SCM415(H)	
2218	12CrMo9,10	TU.H			
		13MoCrV6			
2940	41CrAlMo7	41CrAlMo7			
1312	Fe 360 B FN	AE 235 B FN;FU Fe 360 B FN; FU			St3ps; sp

Material Conversion Table

According to VDI 3323 standard

Material group	AISI/SAE	Material No. DIN		BS	EN	AFNOR
7		1.5755	31 NiCr 14	653 M 31		18 NC 13
7	8620	1.6523	2 NiCrMo2	805M20	362	20 NCD 2
7	8740	1.6546	40 NiCrMo 22	311-Tyre 7		
7	4130	1.7218	25CrMo4	CDS 110		25 CD 4
7		1.7733	24 CrMoV 5 5			20 CDV 6
7		1.7755	GS-45 CrMOV 10 4			
7		1.8070	21 CrMoV 5 11			
8	4142	1.2332	47 CrMo 4	708 M 40	19A	42 CD 4
8	A128 (A)	1.3401	G-X120 Mn 12			Z 120 M 12
8	3435	1.5736	36 NiCr 10			30 NC 11
8	9840	1.6511	36CrNiMo4	816M40	110	40NCD3
8	4340	1.6582	35CrNiM 6	817 M 40	24	35 NCD 6
8		1.7361	32 CeMo12	722 M 24	40B	30 CD 12
8	6150	1.8159	50 CrV 4	735 A 50	47	50CrV4
8		1.8161	58 CrV 4			
8		1.8515	32 CrMo 12	722 M 24	40B	30 CD 12
8		1.8523	39CrMoV13 9	897M39	40C	
9		1.4882	X 50 CrMnNiNbN 21 9			Z 50 CMNNb 21.09
9	3135	1.5710	36NiCr6	640A35	111A	35NC6
9		1.5864	35 niCr 18			
9			31 NiCrMo 13 4	830 m 31		
10	A573-81	1.0144	ST 44-3	4360 43 C		E 28-3
10	A 619	1.0347	DCO3 RSt;RRSt 13	1449 3 CR 1449 2 CR		E
10	M 1015 M 1016 M 1017	1.0401	C15	080 M 15 080 M 15 1449 17 CS		AF 37 C12 XC 18
10		1.0570	ST 52-3	4360 50 B		E 36-3
10	12L13	1.0718	9SMnPb28			S250Pb
10	(12L13)	1.0718	9 SMnPb 28			S 250 Pb

SS	UNI	UNE	JIS	KS	GOST
2506	20NiCrMo2	20NiCrMo2	SNCM220(H)	SNCM220(H)	
	40NiCrMo2(KB)	40NiCrMo2	SNCM240	SNCM240	
2225	25CrMo4(KB)	55Cr3	SCM420/430	SCM420/430	
	21 CrMoV 5 11				
	35 NiCr 9				
2244	42CrMo4	42CrMo4	SCM (440)	SCM (440)	
2183	GX120Mn12	F. 8251-AM-X120Mn12	SCMnH 1, SCMn H 11	SCMnH 1, SCMn H 11	110G13L
	36nIcRmO4(KB)	35NiCrMo4	SUP 10	SPS 10	
2541	35NiCrMo6(KB)		SNCM 447	SNCM 447	
2240	30CrMo12	F.124.A			
2230	50CrV4	51CrV4			
2240	32CrMo12	F.124.A			
	36CrMoV12				
			SNC236	SNC236	
2534		f-1270			
1412			SM 400A;B;C	SM 400A;B;C	
	Fep 02	AP 02			08JU
1350	C15 C16 1 C 15	F.111	S 15 C	SM 15 C	
2132	Fe52BFN/Fe52CFN		SM490A;B;C;YA;YB	SM490A;B;C;YA;YB	
1914	CF9SMnPb28	11SMnPb28			
1914	CF 9 SMnPb 28	11 SMnPb 28	SUM 22L	SUM 22L	

Material Conversion Table

According to VDI 3323 standard

Material group	AISI/SAE	Material No. DIN		BS EN	AFNOR
10		1.0723	15 S 22 15 S 20	210 A 15 210 M 15	
10		1.2083			
10	H 11	1.2343	x 38 CrMoV 5 1	BH 11	Z 38 CDV 5
10	H 13	1.2344	X 40 CrMoV 5 1	BH 13	Z 40 CDV 5
10	A 2	1.2363	X100 CrMoV 5 1	BA 2	Z 100 CDV 5
10	D 2	1.2379	X 155 CrVMo 12 1	BD2	Z 160 CDV 12
10	HNV3	1.2379	X210Cr12G	BD2	Z160CDV12
10	D 4 (D 6)	1.2436	X 210 CrW 12	BD6	Z 200 CD 12
10	H 21	1.2581	X 30 WCrV 9 3	BH 21	Z 30 WCV 9
10		1.2601	X 165 CrMoV 12		
10	H 12	1.2606	X 37 CrMoW 5 1	BH 12	Z 35 CWDV 5
10	D3	1.3343	S 6-5-2	BM2	Z200C12
10	N08028	1.4563			Z1NCDU31-27-03
10	ASTM A353	1.5662	X8Ni9	1501-509;510	
10	ASM A353	1.5662	X8Ni9	502-650	9 Ni
10	2517	1.5680	12Ni19	12Ni19	Z18N5
10	2515	1.5680	12 Ni 19		Z 18 N 5
11		1.3202	S 12-1-4-5	BT 15	
11		1.3207	S 10-4-3-10	BT 42	Z130WKCDV
11	T15	1.3243	S 6-5-2-5		KCV 06-05-05-04-02
11		1.3246	S 7-4-2-5		Z110 WKCDV 07-05-04
11		1.3247	S 2-10-1-8	BM 42	Z110 DKCWV 09-08-04
11	M 42	1.3249	S 2-9-2-8	BM 34	
11	T 4	1.3255	S 18-1-2-5	BT 4	Z 80 WKCV 18-05-04-0
11	M 2	1.3343	S6-5-2	BM2	Z 85 WDCV
11	M 7	1.3348	S2-9-2		Z 100 DCWV 09-04-02-

SS	UNI	UNE	JIS	KS	GOST
1922		F.210.F	SUM 32	SUM 32	
2314					
	X 37 CrMoV 5 1 KU				
2242	X40CrMoV511KU	F-5318	SKD61	STD61	
2260	X100CrMoV51KU	F-5227	SKD12	STD12	
2310	X165CrMoW12KU	X160CrMoW12KU			
2736					
2312	X215CrW 12 1 KU	F-5213			
	X30WCrV 9 3 KU	F-526	SKD5	STD5	
2310					
	X 35 CrMoW 05 KU	F.537			
2715	X210Cr13KU	X210Cr12	SUH3	STR3	
2584					
	14 Ni 6 KG;KT	XBNiO9			
	X10Ni9	F-2645	SL9N60(53)	SL9N590(520)	
	HS 12-1-5-5	12-1-5-5			
2723	HS 6-5-2-5	6-5-2-5	SKH55	SKH55	
7-4-2-5	HS 7-4-2-5	M 35			
2-10-1-8	HS 2-9-1-8 2-9-2-8	M 41			
2722	HS 652	F-5604	SKH 51	SKH 51	
2782	HS 292	F-5607			

Material Conversion Table

According to VDI 3323 standard

Material group	AISI/SAE	Material No. DIN		BS	EN	AFNOR
11	T 1	1.3355	S 18-0-1	BT 1		Z 80 WCV 18-4-01
11	630	1.4548				Z7CNU17-04
11	HNV 3	1.4718	X45CrSi 9 3	401S45	52	Z45CS9
11	422	1.4935	x20 CrMoWV 12 1			
12	403	1.4000	X6Cr13	403 S 17		Z 6 C 13
12		1.4001	X6Cr14			
12	(410S)	1.4001	X7 Cr 13	(403 S 7)		Z 8 C 13
12	405	1.4002	X6CrA12	405S17		Z8CA12
12	405	1.4002	X6 CrAl 13	405 S 17		Z6CA13
12	416	1.4005	X12CrS 13	416 S 21		Z11 CF 13
12	410; CA-15	1.4006	(G-)X10 Cr 13	410S21	56A	Z10 C 13
12	430	1.4016	X8Cr17	Z8C17		430S15
12	430	1.4016	X6 Cr 17	430 S 15	60	Z 8 C 17
12		1.4027	G-X20Cr14	420 C 29		Z20 C 13M
12		1.4027	G-X 20 Cr 14	420 C 29		Z 20 C 13M
12	420	1.4028	X30 Cr 13	420 S 45		Z 30 C 13
12		1.4086	G-X120Cr29	452C11		
12	430 F	1.4104	X12CrMoS17	420 S 37		Z 10 CF 17
12	440B	1.4112	X90 CrMoV 18			
12	434	1.4113	X6CrMo 17	434 S 17		Z 8 CD 17.01
12		1.4340	G-X40CrNi27 4			
12	S31500	1.4417	X2CrNiM0Si19 5			
12	S31500	1.4417	X2 CrNoMoSi 18 5 3			
12		1.4418	X4 CrNiMo16 5			Z6CND16-04-01
12	XM 8 430 Ti 439	1.4510				Z 4 CT 17
12	430tl	1.4510	X6 CrTi 17			Z 4 CT 17
12		1.4511	X 6 CrNb 17(X 6 CrNb 17			Z 4 CNb 17
12	409	1.4512	X 6 CrTi 12 (X2CrTi12)	LW 19 409 S 19		Z 3 CT 12
12		1.4720	X20CrMo13			

SS	UNI	UNE	JIS	KS	GOST
	X45CrSi8	F322	SUH1	STR1	
2301	X6Cr13	F.3110	SUS403	STS 403	
		F8401			
2301					
	X6CrAl13				
2302	X6CrAl13				
2380	X12 CrSC13	F-3411	SUS 416	SUS 416	
2302	X12Cr13	F.3401	SUS 410	SUS 410	
2320	X8Cr17	F.3113			
2320	X8Cr17	F.3113	SUS 430	SUS 430	
2304					
2383	X10CrS17	F.3117	SUS430F	STS 430F	
2325	X8CrMo17		SUS434	STS 434	
2376					
2376					
2387					
	X 6 CrTi 17	F.3115-X 5 CrTi 17	SUS 430 LK	STS 430 LX	08 Ch17T
	X 6 CrNb 17	F.3122-X 5 CrNb 17	SUS 430 LK	STS 430 LX	
	X 6 CrTi 17		SUH 409	STR 409	

Material Conversion Table

According to VDI 3323 standard

Material group	AISI/SAE	Material No. DIN		BS	EN	AFNOR
12	405	1.4724	X10CrA113	403S17		Z10C13
12	430	1.4742	X10CrA118	439S15	60	Z10CAS18
12	HNV6	1.4747	X80CrNiSi20	443S65	59	Z80CSN20.02
12	446	1.4749	x18 cRn 28			
12	446	1.4762	X10CrA124			Z10CAS24
12	EV 8	1.4871	X 53 CrMnNiN 21 9	349 S 54		Z 52 CMN 21.09
12	302		x12 CrNi 18 9	302 S 31		Z 10 CN 18-09
12	429		X10 CrNi 15			
13	420	1.4021	X20Cr13	420S37		Z 20 C 13
13	420	1.4031	X40 Cr 13			Z 40 C 14
13		1.4034	X46Cr13	420 S 45		Z40 C 14
13	431	1.4057	X20CrNi172	431 S 29	57	Z 15 CN 16.02
13		1.4125	X 105 CrMo 17			Z 100 CD 17
13	CA6-NM	1.4313	G-X4 CrNi 13 4	425 C 11		Z 4 CND 13-04 M
13	630	1.4542	X 5 CrNiCuNb 17 4 (X5CrNiCuNb 16-4)			
13		1.4544		S. 524 S. 526		
13	348	1.4546	X5CrNiNb 18-10	347 S 31 2 S. 130 2 S. 143/144/145 S.525/527		
13		1.4922	x20cRmV12-1			
13		1.4923	X22 CrMoV12 1			
14	304	1.4301	X 5 CrNi 18 9	304 S 15		Z 5 CN 18.09
14	303	1.4305	X10 CrNiS 18 9	303 S 21	58M	Z 8 CNF 18-09
14	304L	1.4306	X2CrNi18 9	304S12		Z2CrNi18 10
14	304L	1.4306	X2 CrNi 18 10	304 S 11		Z 3 CN 19-11
14	CF-8	1.4308	X6 CrNi 18 9	304 C 15	58E	Z 6 CN 18-10 M
14	301	1.4310	X12CrN i17 7	301 S 21		Z 12 CN 17.07

SS	UNI	UNE	JIS	KS	GOST
	X10CrA112	F.311			
	X8Cr17	F.3113	SUS430	STS430	
	X80CrSiNi20	F.320B	SUH4	STR4	
2322	X16Cr26		SUH446	STR446	
	X53CrMnNiN21 9		SUH35,SUH36	STR35,STR36	
2330					
2303	14210				
-2304					
	X40Cr14	F.3405	SUS420J2	STS420J2	
2321	X16CrNi16	F.3427	SUS431	STS431	
	X 105 CrMo 17				
2385	(G)X6CrNi304		SCS5	SSC5	
	X 6 CrNiTi 18 11				08Ch 18N12T
	X 6 CrNiNb 18 11				
2317	x20cRmOnI 12 01				
2332;2333					
2346	X10CrNiS18.09	F.3508	SUS303	STS303	
2352	x2cRnI18 11	F.3503	SCS19	SSC19	
2352	X2CrNi18 11				
2333			SUS304L	STS304L	
2331	X2CrNi18 07	F.3517			

Material Conversion Table

According to VDI 3323 standard

Material group	AISI/SAE	Material No. DIN		BS	EN	AFNOR
14	304 LN	1.4311	X2 CrNiN 18 10	304 S 62		Z 2 CN18.10
14		1.4312	G-X10CrNi18 8	302C25		Z10CN18.9M
14	305	1.4312	X8 CrNi 18 12	305 S 19		
14		1.4332	X2 CrNi 18-8			
14	304	1.4350	X5CrNi18 9	304S15	58E	Z6CN18.09
14	S32304	1.4362	X2 CrNiN 23 4			Z 2 CN 23-04 AZ
14	202	1.4371	X3 CrMnNiN 188 8 7	284 S 16		Z 8 CMN 18- 08-05
14	316	1.4401	X 5 CrNiMo 17 12 2 (X4 CrNiMo 17 -12-2)	316 S 13 316 S 17 316 S 19 316 S 31 316 S 33		Z 3 CND 17 -11-01 Z 6 CND 17-11 Z 6 CND 17-11-02 Z 7 CND 17-11-02 Z 7 CND 17-12-02
14	316L	1.4404	X2 CrNiMo 17 13 2 (X2 CrNiMo 17-12-2) GX 2 CrNiMoN 18-10	316 S 11, 316 S 13 316 S 14, 316 S 31; 316 S 42, S.537;316 C 12, T.75, S. 161		Z 2 CND 17-12 Z 2 CND 18-13 Z 3 CND 17-11-02 Z 3 CND 17-12-02 FF Z 3 CND 18-12-03 Z 3 CND 19.10 M
14	316LN	1.4406	X2 CrNiMoN 17 12 2 (X2CrNiMoN 18-10)	316 S 61 316 S 63		Z2 CND 17-12 AZ
14	CF-8M	1.4408	GX 5 CrNiMoN 7 12 2 G-X 6 CrNiMo 18 10	316 C 16 (LT 196) ANC 4 B		
14		1.4410	G-X10CrNiMo18 9			Z5CNaD20.12M
14	316 Ln	1.4429	X2 CrNiMo 17 -13-3	316 S 62		Z 2 CND 17-13 Az
14	316L	1.4435	X2 CrNiMo18 14 3	316 S 11;316 S 13 316 S 14;316 S 31 LW 22 LWCF 22		Z 3 CND 17-12-03 Z 3 CND 18-14-03
14	316	1.4436	X 5 CrNiMo 17 13 3 (X4CRNIMO 17-13-3	316 S 19; 316 S 31 316 S 33 LW 23 LWCF 23		Z 6 CND 18-12-03 Z 7 CND 18-12-03

SS	UNI	UNE	JIS	KS	GOST
2371	X2CrNiN18 10		SUS304LN	STS304LN	
2332	X5CrNi18 10	F.3551	SUS304	STS304	
2347	X 5 CrNiMo 17 12	F.3534-X 5 CrNiMo 17 12 2	SUS 316	STS 316	
2348	X 2 CrNiMo 17 12 G-X 2 CrNiMo 19 11	F.3533 - X 2 CrNiMo 17 13 2 F.3537 - X 2 CrNiMo 17 13 3	SUS 316 L	STS 316 L	
	X 2 CrNiMoN 17 12	F.3542-X 2 CrNiMoN 17 12 2	SUS316LN	STS316LN	
2343		F.8414-AM-X 7 CrNiMo 20 10	SCS 14	SSC 14	07 Ch 18N10G2S2MSL
2328					
2375	X 2 CrNiMoN 17 13	F.3543-X 2 CrNiMoN 17 13 3	SUS 316 LN	STS 316 LN	
2375	X 2 CrNiMoN 17 13	F.3533-X 2 CrNiMo 17 13 2	SUS 316 L	STS 316 L	O3 Ch 17N14M3
2343	X 5 CrNiMo 117 13 X 8 cRnImO 17 13	F.3543-X 5 CrNiMo 17 12 2 F.3538-X 5 CrNiMo 17 13	SUS 316	STS 316	

Material Conversion Table

According to VDI 3323 standard

Material group	AISI/SAE	Material No. DIN		BS	EN	AFNOR
14	317L	1.4438	X2 CrNiMo 18 16 4 (X2CrNiMo 18-15-4)	317 S 12		Z 2 CND 19-15-04 z 3 cnd 19-15-04
14	(s31726)	1.4439	X2 CrNiMoN 17 13 5			Z 3 CND 18-14-06 AZ
14		1.4440	X 2 CrNiMo 18 13			
14	317	1.4449	X5 CrNiMo 17 13 3	317 S 16		
14	329	1.4449 1.4460	X 4 CrNiMo 27 5 2 (X3CrNiMo27-5-2)			(Z 3 CND 25-07 Az) Z 5 CND 27-05 Az
14	329	1.4460	X8CrNiMo27 5			
14		1.4462	X2CrNiMoN22 5 3	318 S 13		Z 3 CND 22-05 Az (Z 2 CND 24 -08 Az) (Z 3 CND 25-06-03 Az)
14		1.4500	G-X7NiCrMoCuNb25 20			23NCDU25.20M
14	17-7PH	1.4504		316S111		
14	443 444	1.4521	X2CrMoTi18-2	317 S 16		
14	UNS N 08904	1.4539	X1NiCrMoCuN25-20-5			Z 2 NCDU 25-20
14	CN-7M	1.4539	(G-)X1 NiCrMoCu 25 20 5			Z1 NCDU 25-02 M
14	321	1.4541	Z 6 CrNiTi 18-10	321 S 31 321 S 51 (1010;1105) LW 24 LWCF 24		Z 6 CNT 18-10
14	630	1.4542	X5 CrNiCuNb 17 4 (X5 CrNiChNb 16-4)			Z 7 CNU 15-05 Z 7 CNU 17-04
14	17-4PH	1.4542				Z7CNU17-04
14	S31254	1.4547	X1 CrNiMoN 20 18 7			
14	17-4PH	1.4548				Z7CNU17-04
14	347	1.4550	X6 CrNiNb 18 10	347 S 17	58F	Z 6 CNNb 18.10
14		1.4552	G-X7CrNiNb18 9			Z4CNNb19.10M
14	17-7PH	1.4568		316S111		
14	316tTi	1.4571	X6 CrNiMoTi 17 12 2	320 S 31		Z 6 CNDT 17-12002
14		1.4581	G-X 5 CrNiMoNb	318 C 17		Z 4 CNDNb 18.12 M
14	318	1.4583	X 10CrNiMoNb 18 12	303 S 21		Z15CNS20.12

SS	UNI	UNE	JIS	KS	GOST
2367	X2CrNiMo18 16	f.3539-x 2 cRnImO 18 16 4	SUS317L	STS317L	
	X 5 CrNiMo 18 15		SUS 317	STS 317	
2324		F.3309-X 8 CrNiMo 17 12 2			
		F.3552-X 8 CrNiMo 18 16 4	SUS 329 J 1	STS 329 J 1	
2377			SUS 329 J3L	STS 329 J3L	
	Z8CNA17-07	X2CrNiMo1712			
2326		F.3123-X 2 CrMoTiNb 18 2	SUS 444	STS 444	
2562					
2564					
2337	X 6 CrNiTi 18 11	F.3523 - X 6 CrNiTi 18 10	SUS 321	STS 321	06Ch18N10T 08Ch18N10T 09Ch18N10T 12Ch18N10T
			SCS 24	SSC 24	
			SUS 630	STS 630	
2378					
2338	X6CrNiNb18 11	F.3552	SUS347	STS347	
	Z8CNA17-07	X2CrNiMo1712			
2350					
	x15cRnIsI2 12				

Material Conversion Table

According to VDI 3323 standard

Material group	AISI/SAE	Material No. DIN		BS	EN	AFNOR
14		1.4585	G-X7CrNiMoCuNb18 18			
14		1.4821	X20CrNiSi25 4			Z20CNS25.04
14		1.4823	G-X40CrNiSi27 4			
14	309	1.4828	X15CrNiSi20 12	309 S 24	58C	Z15CNS20.12
14	309S	1.4833	X6 CrNi 22 13	309 S 13		Z 15 CN 24-13
14	310 S	1.4845	X12 CrNi 25 21	310S24		Z 12 CN 25-20
14	321	1.4878	X6 CrNiTi 18 9	32 1 S 20	58B	Z 6 CNT 18-12 (B)
14	Ss30415	1.4891	X5 CrNiNb 18 10			Z20CNS25.04
14	S30815	1.4893	X8 CrNiNb 11			
14	304H	1.4948	X6 CrNi 18 11	304 S 51		Z 5 CN 18-09
14	660	1.498	X5 NiCrTi 25 15			Zz 8 nctv 25-15 b ff
14			X5 NiCrN 35 25			
14	S31753		X2 CrNiMoN 18 13 4			
14			X2 CrNiMoN 25 22 7			
15	CLASS20	0.6010	GG10			Ft10D
15	A48-20B	0.6010	GG-10			Ft 10 D
15	NO 25 B	0.6015	GG 15	Grade 150		Ft 15 D
15	CLASS25	0.6015	GG 15	Grade 150		Ft 15D
15	A48 25 B	0.6015	GG 15	Grade 150		Ft 15 D
15	A48-30B	0.6020	GG-20	Grade 220		Ft 20 D
15	NO 30 B	0.6020	GG 20	Grade 220		Ft 20 D
15	A436 Type 2	0.6660	GGL-NiCr202	L-NiCuCr202		L-NC 202
15	60-40-18	0.7040	GGG 40	SNG 420/12		FCS 400-12
15	No 20 B		GG 10			Ft 10 D
16	CLASS30	0.6020	GG 20	Grade 220		Ft 20D
16	CLASS45	0.6030	GG 30	Grade 300		Ft 30D
16	A48-45 B	0.6030		Grade 350		Ft 30D
16	A48-50	0.6035	GG-35	Grade 350		Ft 35 D
16	A48-60 B	0.6040	GG40	Grade 400		Ft 40 D
16	100/70/03	0.7070	GGG-70	SNG700/2		FGS 700-2

SS	UNI	UNE	JIS	KS	GOST
	X6CrNiMoTi17 12				
		F.8414	SCS17	SSC17	
2361	X6CrNi25 20	F.331	SUH310	STR310	
2337	X6CrNiTi18 11	F.3553	SUS321	STS321	
2372					
2368					
2333					
2570					
110	G 10				
0110-00					
0115-00	G 15	FG 15	FC150	GC150	
115	G 15	FG 15			
01 15-00	G 14	FG 15			
0120-00					
120	G 20		FC200	GC200	
0523-00					
0717-02	GS 370-17	FGE 38-17	FCD400	GCD400-18,15	
110			FC100	GC100	
120	G 20	FG 20			
130	G 30	FG 30	FC300	GC300	
01 30-00					
135	G 35	FG 35	FC350	GC350	
140					
07 37-01	GGG 70	GGG 70	FCD700	GCD700-2	

Material Conversion Table

According to VDI 3323 standard

Material group	AISI/SAE	Material No. DIN		BS EN	AFNOR
16		1.4829	X 12 CrNi 22 12		
17		0.7033	GGG35.3		
17		0.7033	GGG-35.3	350/22 L 40	FGS 370/17
17	60-40-18	0.7040	GGG-40	SNG 420/12	FGS 400-12
17	60/40/18	0.7043	GGG-40.3	370/7	FGS 370/17
17	80-55-06	0.7050	GGG50	SNG500/7	FGS 500/7
17	65-45-12	0.7050	GGG-50	SNG 500/7	FGS 500-7
17		0.7652	GGG-NiMn 13 7	S-NiMn 137	S-Mn 137
17	A43D2	0.7660	GGG-NiCr 20 2	Grade S6	S-NC 202
17			GGG 40.3	SNG 370/17	FGS 370-17
18	A48-40 B	0.6025	GG25	Grade260	Ft 25 D
18		0.7060	GGG60	SNG600/3	FGS600-3
18	80/55/06	0.7060	GGG-60	600/3	FGS 600/3
18	A48 40 B				
19		0.8055	GTW55		
19	32510	0.8135	GTS-35-10	B 340/12	MN35-10
19	A47-32510	0.8135	GTS-35-10	B 340/2	Mn 35-10
19	A220-40010	0.8145	GTS-45-06	P 440/7	Mn 450-6
19			GTS-35	B 340/12	
19				8 290/6	MN 32-8
19	32510		GTS-35	B340/12	MN 35-10
20		0.8035	GTM-35	W340/3	MB35-7
20		0.8040	GTW-40	W410/4	MB40-10
20		0.8045			
20		0.8065	GTMW-65		
20	A220-50005	0.8155	GTS-55-04	P 510/4	Mn 550-4
20	50005	0.8155	GTS-55-04	P 510/4	MP 50-5
20	70003	0.8165	GTS-65-02	P 570/3	Mn 650-3
20	90001	0.8170	GTS-70-02	P 690/2	Mn 700-2
20	A220-90001	0.8170	GTS-70-02		Mn 700-2

SS	UNI	UNE	JIS	KS	GOST
0717-15					
0717-15					
0717-02					
0717-15					
0727-02	GGG 50				
	0727-02		FCD 500	GCD 500-7	
0772-00					
0776-00					
0717-12					
125	G 25	FG 25	FC250	GC250	
07 32-03	GGG 60	GGG 60			
0727-03			FCD600	GCD600-3	
		GTW 55			
810		GTS 35			
0815-00					
	0852-00	GMN 45			FCMW370
0810-00					
814			AC4A	AC4A	
08 15			FCMW330	FCMW330	
852		GTM 35			
	GTB40	GTM 40			
	GMB45	GTM 45			
		GTM 65			
0854-00					
0854-00	GMN 55		FCMP490	PMC 490	
0856-00	GMN 65		FCMP590	PMC 590	

Material Conversion Table

According to VDI 3323 standard

Material group	AISI/SAE	Material No. DIN		BS	EN	AFNOR
20		0.8170	GTS-70-02	IP 70-2		
20	1022 1518	1.1133	20Mn5	120 M 19		20 M 5
20	1035	1.1183	Cf 35 (C35G)	080 A 35		XC 38 H 1 TS
20	400 10		GTS-45	P440/7		
20	70003		GTS-65	P 570/3		MP 60-3
21	Al99	3.0205				
21	1000	3.0255	Al99.5	L31/34/36		A59050C
21		3.3315	AlMg1			
22		3.1325	AlCuMg 1			
22		3.1655	AlCuSiPb			
22		3.2315	AlMgSi1			
21	7050	3.4345	AlZnMgCuO,5	L 86		AZ 4 GU/9051
23		3.2381	G-AlSi 10 Mg			
23		3.2382	GD-AlSi10Mg			
23		3.2581	G-AlSi12			
23		3.3561	G-AlMg 5			
23	ZE 41	3.5101	G-MgZn4sE1Zr1	MAG 5		
23	EZ 33	3.5103	MgSE3Zn27r1	MAG 6		G-TR3Z2
23	AZ 81	3.5812	G-MgAl8Zn1	NMAG 1		
23	AZ 91	3.5912	G-MgAl9Zn1	MAG 7		
24		2.1871	G-AlCu 4 TiMg			
24		3.1754	G-AlCu5Ni1,5			
24		3.2163	G-AlSi9Cu3			
24	4218 B	3.2371	G-AlSi 7 Mg			
24	SC64D	3.2373	G-AlSI9MGWA			A-S7G
24		3.2373	G-AlSi 9 Mg			
24	QE 22	3.5106	G-MgAg3SE2Zr1	mag 12		
24	GD-AlSi12		G-ALMG5	LM5		A-SU12
23-24	A360.2	3.2383	G-AlSi0Mg(Cu)	LM9		

SS	UNI	UNE	JIS	KS	GOST
0862-00	GMN 70		FCMP690	PMC 690	
0864-00					
2132	G 22 Mn 3				
	20 Mn 7	F.1515-20 Mn 6	SMnC 420	SMnC 420	
1572	C 36; C 38		S 35 C	SM 35 C	35
08 52					
858			FCMP540	PMC 540	
811-04					
4231			C4BS	C4BS	
4252					
4253					

Material Conversion Table

According to VDI 3323 standard

Material group	AISI/SAE	Material No. DIN		BS EN	AFNOR
23-24	A356-72			2789;1973	NF A32-201
23-24	356.1			LM25	
23-24	A413.2		G-AlSi12	LM6	
23-24	A413.1		G-AlSi 12 (Cu)	LM20	
23-24	A413.0		GD-AlSi12		
23-24	A380.1		GD-AlSi8Cu3	LM24	
26	C93200	2.1090	G-CuSn 7 5 pb		U-E 7 Z 5 pb 4
26	C83600	2.1096	G-CuSn5ZnPb	LG 2	
26	C83600	2.1098	G-CuSn 2 Znpb		
26	C23000	2.1182	G-CuPb15Sn	LB1	U-pb 15 E 8
26	C93800	2.1182	G-CuPb15Sn		Uu-PB 15e 8
27		2.0240	CuZn 15		
27	C27200	2.0321	CuZn 37	cz 108	CuZn 36, CuZn 37
27	C27700	2.0321	CuZn 37	cz 108	CuZn 36, CuZn 37
27		2.0590	G-CuZn40Fe		
27	C 86500	2.0592	G-CuZn 35 Al 1	U-Z 36 N 3	HTB 1
27	C 86200	2.0596	G-CuZn 34 Al 2	HTB 1	U-Z 36 N 3
27	C 18200	2.1293	CuCrZr	CC 102	U-Cr 0.8 Zr
28		2.0060	E-Cu57		
28		2.0375	CuZn36Pb3		
28	C 94100	2.0596	G-CuZn 34 Al 2	HTB 1	U-Z 36 N 3
28	C 63000	2.0966	CuAl 10 Ni 5 Fe 4	Ca 104	U-A 10 N
28	B-148-52	2.0975	G-CuAl 10 Ni		
28	C 90700	2.105	G-CuSn 10	CT1	
28	C 90800	2.1052	G-CuSn 12	pb 2	UE 12 P
28	C 81500	2.1292	G-CuCrF 35	CC1-FF	
28		2.4764	CoCr20W15Ni		
31	N 08800	1.4558	X 2 NiCrAlTi 32 20	NA 15	
31	N 08031	1.4562	X 1 NiCrMoCu 32 28 7		

SS	UNI	UNE	JIS	KS	GOST
4244			A5052	A5052P	
4261					
4260			ADC12	ALDC12	
4247			A6061	A6061P	
4250			A7075	A7075P	
	C 2700				
	C 2720				

Material Conversion Table

According to VDI 3323 standard

Material group	AISI/SAE	Material No. DIN		BS EN	AFNOR
31	N 08028	1.4563	X 1 NiCrMoCuN 32 27 4		
31	N 08330	1.4564	X 12 NiCrSi 36 16	NA 17	Z 12 NCS 35.16
31	330	1.4564	X12 NiCrSi 36 16	NA 17	Z 12 NCS 37.18
31		1.4865	G-X40NiCrSi38 18	330 C 40	
31		1.4958	X 5 NiCrAlTi 31 20		
31	AMS 5544	LW2.4668	NiCr19NbMo		NC20K14
32		1.4977	X 40 CoCrNi 20 20		Z 42 CNKDWNb
33	Monel 400	2.4360	NiCu30Fe	NA 13	NU 30
33	5390A	2.4603			NC22FeD
33	Hastelloy C-4	2.4610	NiMo16cR16Ti		
33	Nimonic75	2.4630	NiCr20Ti	HR 5,203-4	NC 20 T
33		2.4630	NiCr20Ti	HR5,203-4	NC20T
33	Inconel 690	2.4642	NiC29Fe		Nnc 30 Fe
33	Inconel 625	2.4856	NiCr22Mo9Nb	NA 21	NC 22 FeDNb
33	5666	2.4856	NiCr22Mo9Nb		Inconel 625
33	Incoloy 825	2.4858	NiCr21Mo	NA 16	NC 21 Fe DU
34	Monel k-500	2.4375	NiCu30 Al	NA 18	NU 30 AT
34	4676	2.4375	NiCu30Al	3072-76	
34		2.4631	NiCr20TiAl	Hr40;601	NC20TA
34	Inconel 718	2.4668	NiCr19FeNbMo		NC 19 Fe Nb
34	Inconel	2.4694	NiCr16fE7TiAl		
34		2.4955	NiFe25Cr20NbTi		
34	5383	LM2.4668	NiCr19Fe19NbMo	HR8	NC19eNB
34	5391	LW2 4670	S-NiCr13A16MoNb	3146-3	NC12AD
34	5660	LW2.4662	NiFe35Cr14MoTi		ZSNCDT42
34	5537C	LW2.4964	CoCr20W15Ni		KC20WN
34	AMS 5772		C0Cr22W14Ni		KC22WN
35	Inconel X-750	2.4669	NiCr15Fe7TiAl		NC 15 TNb A
35	Hastelloy B	2.4685	G-NiMo28		
35	Hastelloy C	2.4810	G-NiMo30		

SS	UNI	UNE	JIS	KS	GOST
2584					
			SUH330	STR 330	
	XG50NiCr39 19		SCH15	HRSC 15	

Material Conversion Table

According to VDI 3323 standard

Material group	AISI/SAE	Material No. DIN		BS EN	AFNOR
35	AMS 5399	2.4973	NiCr19Co11MoTi		NC19KDT
35		3.7115	TiAl5Sn2		
36	R 50250	3.7025	Ti 1	2 TA 1	
36	R 52250	3.7225	Ti 1 pd	TP 1	
36	AMS 5397	LW2 4674	NiCo15Cr10MoAlTi		
37		3.7124	TiCu2	2 TA 21-24	
37	R 54620	3.7145	TiAl6Sn2Zr4Mo2Si		
37		3.7165	TiAl6V4	TA 10-13;TA 28	T-A 6 V
37		3.7185	TiAl4Mo4Sn2	TA 45-51; TA 57	
37		3.7195	TiAl 3 V 2.5		
37			TiAl4Mo4Sn4Si0.5		
37	AMS R54520		TiAl5Sn2.5	TA14/17	T-A5E
37	AMS R56400		TiAl6V4	TA10-13/TA28	T-A6V
37	AMS R56401		TiAl6V4ELI	TA11	
38	W 1	1.1545	C105W1	BW 1A	Y1105
38	W210	1.1545	C105W1	BW2	Y120
38		1.2762	75 CrMoNiW 6 7		
38	440C	1.4125	X105 CrMo 17		Z 100 CD 17
38		1.6746	32 nIcRmO 14 5	832 M 31	35 NCD 14
40	Ni- Hard 2	0.9620	G-X 260 NiCr 4 2	Grade 2 A	
40	Ni- Hard 1	0.9625	G-X 330 Ni Cr 4 2	Grade 2 B	
40	Ni- Hard 4	0.9630	G-X 300 CrNiSi 9 5 2		
40		0.9640	G-X 300 CrMoNi 15 2 1		
40	A 532 III A 25% Cr	0.9650	G-X 260 Cr 27	Grade 3 D	
40	A 532 III A 25% Cr	0.9655	G-X 300 CrNMo 27 1	Grade 3 E	
40		1.2419	105 WCr 6	105WC 13	
40	310	1.4841	X15 CrNiSi 25 20	314 S31	Z 15 CNS 25-20
41		0.9635	G-X 300 CrMo 15 3		
41		0.9645	G-X 260 CrMoNi 20 2 1		
41		0.9655	G-X 300 CrNMo 27 1		

SS	UNI	UNE	JIS	KS	GOST
1880	C100KU	F-5118	SK3	STC 105(STC3)	
2900	C120KU	CF.515	SUP4	SPS 4	
	0512-00				
	0513-00				
	0466-00				
		107 WCr 5 KU			