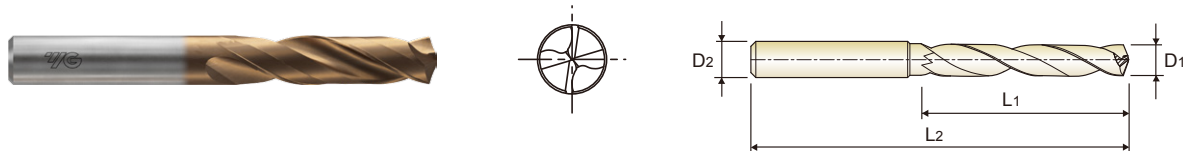


Z-COATED SOLID CARBIDE DREAM DRILLS PRO without Coolant Holes (3XD)

DGN523 SERIES

- ▶ Drilling for Carbon Steels, Alloy Steels (HB225-325), Pre-hardened Steels (HRC30-50), Cast Iron
- ▶ Wave shape cutting edge to improve chip formation for low cutting force
- ▶ Helical thinning for low thrust, stable torque and good chip breakage
- ▶ Extremely high hardness and heat resistance due to YG-1 special Z-Coating technology


DIN
6537

CARBIDE
h6
m7
140°

P. 19

SHORT
3 × D

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
Z-Coating	D1	D2	L1	L2
DGN523030	3.0	6	20	62
DGN523031	3.1	6	20	62
DGN523032	3.2	6	20	62
DGN523033	3.3	6	20	62
DGN523034	3.4	6	20	62
DGN523035	3.5	6	20	62
DGN523036	3.6	6	20	62
DGN523037	3.7	6	20	62
DGN523038	3.8	6	24	66
DGN523039	3.9	6	24	66
DGN523040	4.0	6	24	66
DGN523041	4.1	6	24	66
DGN523042	4.2	6	24	66
DGN523043	4.3	6	24	66
DGN523044	4.4	6	24	66
DGN523045	4.5	6	24	66
DGN523046	4.6	6	24	66
DGN523047	4.7	6	24	66
DGN523048	4.8	6	28	66
DGN523049	4.9	6	28	66
DGN523050	5.0	6	28	66
DGN523051	5.1	6	28	66
DGN523052	5.2	6	28	66
DGN523053	5.3	6	28	66

▶ Other shank types are available on your request.

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
Z-Coating	D1	D2	L1	L2
DGN523054	5.4	6	28	66
DGN523055	5.5	6	28	66
DGN523056	5.6	6	28	66
DGN523057	5.7	6	28	66
DGN523058	5.8	6	28	66
DGN523059	5.9	6	28	66
DGN523060	6.0	6	28	66
DGN523061	6.1	8	34	79
DGN523062	6.2	8	34	79
DGN523063	6.3	8	34	79
DGN523064	6.4	8	34	79
DGN523065	6.5	8	34	79
DGN523066	6.6	8	34	79
DGN523067	6.7	8	34	79
DGN523068	6.8	8	34	79
DGN523069	6.9	8	34	79
DGN523070	7.0	8	34	79
DGN523071	7.1	8	41	79
DGN523072	7.2	8	41	79
DGN523073	7.3	8	41	79
DGN523074	7.4	8	41	79
DGN523075	7.5	8	41	79
DGN523076	7.6	8	41	79
DGN523077	7.7	8	41	79

Unit : mm

▶ NEXT PAGE

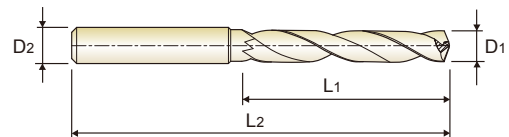
P										M					K				
Non-alloy steel										Stainless steel					Grey cast iron				
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
HRC	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25	21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
N										S					H				
Aluminum-wrought alloy										Heat Resistant Super Alloys					Titanium Alloys				
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
HRC	60	100	75	90	130	110	90	100			15	30	25	38	34	400 Rm	1050 Rm	55	60
HB											200	280	250	350	320			550	630
Recommended																			

◎ : Excellent ○ : Good

Z-COATED SOLID CARBIDE DREAM DRILLS PRO without Coolant Holes (3XD)

DGN523 SERIES

- ▶ Drilling for Carbon Steels, Alloy Steels (HB225-325), Pre-hardened Steels (HRC30-50), Cast Iron
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- ▶ Extremely high hardness and heat resistance due to YG-1 special Z-Coating technology



P. 19

SHORT

3 × D

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
Z-Coating	D1	D2	L1	L2
DGN523078	7.8	8	41	79
DGN523079	7.9	8	41	79
DGN523080	8.0	8	41	79
DGN523081	8.1	10	47	89
DGN523082	8.2	10	47	89
DGN523083	8.3	10	47	89
DGN523084	8.4	10	47	89
DGN523085	8.5	10	47	89
DGN523086	8.6	10	47	89
DGN523087	8.7	10	47	89
DGN523088	8.8	10	47	89
DGN523089	8.9	10	47	89
DGN523090	9.0	10	47	89
DGN523091	9.1	10	47	89
DGN523092	9.2	10	47	89
DGN523093	9.3	10	47	89
DGN523094	9.4	10	47	89
DGN523095	9.5	10	47	89
DGN523096	9.6	10	47	89
DGN523097	9.7	10	47	89
DGN523098	9.8	10	47	89
DGN523099	9.9	10	47	89
DGN523100	10.0	10	47	89
DGN523101	10.1	12	55	102

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
Z-Coating	D1	D2	L1	L2
DGN523102	10.2	12	55	102
DGN523103	10.3	12	55	102
DGN523104	10.4	12	55	102
DGN523105	10.5	12	55	102
DGN523106	10.6	12	55	102
DGN523107	10.7	12	55	102
DGN523108	10.8	12	55	102
DGN523109	10.9	12	55	102
DGN523110	11.0	12	55	102
DGN523111	11.1	12	55	102
DGN523112	11.2	12	55	102
DGN523113	11.3	12	55	102
DGN523114	11.4	12	55	102
DGN523115	11.5	12	55	102
DGN523116	11.6	12	55	102
DGN523117	11.7	12	55	102
DGN523118	11.8	12	55	102
DGN523119	11.9	12	55	102
DGN523120	12.0	12	55	102
DGN523123	12.3	14	60	107
DGN523125	12.5	14	60	107
DGN523128	12.8	14	60	107
DGN523130	13.0	14	60	107
DGN523135	13.5	14	60	107

Unit : mm

▶ Other shank types are available on your request.

▶ NEXT PAGE

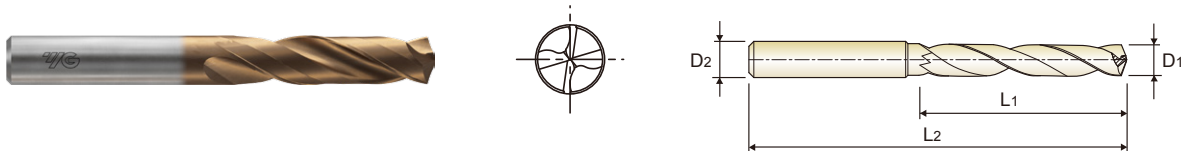
◎ : Excellent ○ : Good																						
ISO	P										M					K						
Material Description	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron			
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
HRC		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21		
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230		
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎		
ISO	N										S							H				
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)				Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
HRC											15	30	25	38	34			55	60	42	55	
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550	
Recommended																						

◎ : Excellent ○ : Good

Z-COATED SOLID CARBIDE DREAM DRILLS PRO without Coolant Holes (3XD)

DGN523 SERIES

- ▶ Drilling for Carbon Steels, Alloy Steels (HB225-325), Pre-hardened Steels (HRC30-50), Cast Iron
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DIN
6537

CARBIDE
h6
m7
140°

P. 19

SHORT
3 × D

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
Z-Coating	D1	D2	L1	L2
DGN523138	13.8	14	60	107
DGN523140	14.0	14	60	107
DGN523145	14.5	16	65	115
DGN523148	14.8	16	65	115
DGN523150	15.0	16	65	115
DGN523155	15.5	16	65	115
DGN523158	15.8	16	65	115
DGN523160	16.0	16	65	115
DGN523165	16.5	18	73	123
DGN523168	16.8	18	73	123

▶ Other shank types are available on your request.

Unit : mm				
EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
Z-Coating	D1	D2	L1	L2
DGN523170	17.0	18	73	123
DGN523175	17.5	18	73	123
DGN523178	17.8	18	73	123
DGN523180	18.0	18	73	123
DGN523185	18.5	20	79	131
DGN523190	19.0	20	79	131
DGN523195	19.5	20	79	131
DGN523198	19.8	20	79	131
DGN523200	20.0	20	79	131

◎ : Excellent ○ : Good

ISO	P										M					K						
Material Description	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron			
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
HRC		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21		
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230		
Recommended	◎		◎		◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎		
ISO	N										S							H				
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron	
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
HRC											15	30	25	38	34			55	60	42	55	
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550	
Recommended																						

◎ : Excellent ○ : Good

DGN523, DGN526 SERIES without COOLANT HOLES

V_c = m/min
RPM = rev/min.
FEED = mm/rev.

ISO	VDI 3323	Material Description	V _c	Parameter	Drill Diameter (mm)		V _c	Parameter	Drill Diameter (mm)			
					1.0	2.0			3.0	4.0	5.0	6.0
P	2	Non-alloy steel	85	RPM FEED	27,060 0.03-0.05	13,530 0.05-0.07	120	RPM FEED	12,730 0.06-0.12	9,550 0.08-0.14	7,640 0.14-0.20	6,370 0.16-0.22
	3		85	RPM FEED	27,060 0.03-0.05	13,530 0.05-0.07	120	RPM FEED	12,730 0.06-0.12	9,550 0.08-0.14	7,640 0.14-0.20	6,370 0.16-0.22
	4		85	RPM FEED	27,060 0.03-0.05	13,530 0.05-0.07	120	RPM FEED	12,730 0.04-0.10	9,550 0.07-0.13	7,640 0.10-0.16	6,370 0.12-0.18
	5		75	RPM FEED	23,870 0.03-0.05	11,940 0.05-0.07	95	RPM FEED	10,080 0.04-0.10	7,560 0.07-0.13	6,050 0.10-0.16	5,040 0.12-0.18
	6	Low alloy steel	85	RPM FEED	27,060 0.03-0.05	13,530 0.05-0.07	120	RPM FEED	12,730 0.06-0.12	9,550 0.08-0.14	7,640 0.14-0.20	6,370 0.16-0.22
	7		75	RPM FEED	23,870 0.03-0.05	11,940 0.05-0.07	95	RPM FEED	10,080 0.06-0.12	7,560 0.08-0.14	6,050 0.10-0.20	5,040 0.12-0.24
	8		75	RPM FEED	23,870 0.02-0.04	11,940 0.03-0.05	95	RPM FEED	10,080 0.04-0.10	7,560 0.07-0.13	6,050 0.10-0.16	5,040 0.12-0.18
	9		36	RPM FEED	11,460 0.02-0.04	5,730 0.03-0.05	50	RPM FEED	5,310 0.03-0.08	3,980 0.05-0.11	3,180 0.08-0.14	2,650 0.10-0.16
	10	High alloyed steel, and tool steel	60	RPM FEED	19,100 0.03-0.05	9,550 0.05-0.07	80	RPM FEED	8,490 0.04-0.10	6,370 0.07-0.13	5,090 0.10-0.16	4,240 0.12-0.18
	11		35	RPM FEED	11,140 0.02-0.04	5,570 0.03-0.05	45	RPM FEED	4,770 0.03-0.08	3,580 0.05-0.11	2,860 0.08-0.14	2,390 0.10-0.16
M	12	Stainless steel	60	RPM FEED	19,100 0.03-0.05	9,550 0.05-0.07	85	RPM FEED	9,020 0.06-0.12	6,760 0.08-0.14	5,410 0.14-0.20	4,510 0.16-0.22
	13		45	RPM FEED	14,320 0.02-0.04	7,160 0.03-0.05	55	RPM FEED	5,840 0.04-0.10	4,380 0.07-0.13	3,500 0.10-0.16	2,920 0.12-0.18
K	15	Grey cast iron	85	RPM FEED	27,060 0.04-0.06	13,530 0.04-0.06	120	RPM FEED	12,730 0.08-0.14	9,550 0.12-0.18	7,640 0.18-0.24	6,370 0.14-0.26
	16		80	RPM FEED	25,460 0.04-0.06	12,730 0.04-0.06	95	RPM FEED	10,080 0.06-0.12	7,560 0.08-0.14	6,050 0.14-0.20	5,040 0.16-0.22
	17	Nodular cast iron	85	RPM FEED	27,060 0.04-0.06	13,530 0.04-0.06	120	RPM FEED	12,730 0.08-0.14	9,550 0.12-0.18	7,640 0.18-0.24	6,370 0.14-0.26
	18		60	RPM FEED	19,100 0.04-0.06	9,550 0.04-0.06	85	RPM FEED	9,020 0.06-0.12	6,760 0.08-0.14	5,410 0.14-0.20	4,510 0.16-0.22
	19	Malleable cast iron	75	RPM FEED	23,870 0.04-0.06	11,940 0.04-0.06	95	RPM FEED	10,080 0.08-0.14	7,560 0.12-0.18	6,050 0.18-0.24	5,040 0.14-0.26
	20		60	RPM FEED	19,100 0.03-0.05	9,550 0.05-0.07	85	RPM FEED	9,020 0.06-0.12	6,760 0.08-0.14	5,410 0.14-0.20	4,510 0.16-0.22

ISO	VDI 3323	Material Description	Vc	Parameter	Drill Diameter (mm)						
					8.0	10.0	12.0	14.0	16.0	18.0	20.0
P	2	Non-alloy steel	120	RPM FEED	4,770 0.18-0.24	3,820 0.22-0.28	3,180 0.20-0.30	2,730 0.22-0.32	2,390 0.24-0.34	2,120 0.28-0.38	1,910 0.30-0.40
	3		120	RPM FEED	4,770 0.18-0.24	3,820 0.22-0.28	3,180 0.20-0.30	2,730 0.22-0.32	2,390 0.24-0.34	2,120 0.28-0.38	1,910 0.30-0.40
	4		120	RPM FEED	4,770 0.14-0.20	3,820 0.18-0.24	3,180 0.14-0.24	2,730 0.16-0.26	2,390 0.18-0.28	2,120 0.20-0.30	1,910 0.22-0.32
	5		95	RPM FEED	3,780 0.14-0.20	3,020 0.18-0.24	2,520 0.14-0.24	2,160 0.16-0.26	1,890 0.18-0.28	1,680 0.20-0.30	1,510 0.22-0.32
	6	Low alloy steel	120	RPM FEED	4,770 0.18-0.24	3,820 0.22-0.28	3,180 0.20-0.30	2,730 0.22-0.32	2,390 0.24-0.34	2,120 0.28-0.38	1,910 0.30-0.40
	7		95	RPM FEED	3,780 0.16-0.28	3,020 0.20-0.30	2,520 0.21-0.30	2,160 0.22-0.35	1,890 0.25-0.36	1,680 0.28-0.38	1,510 0.30-0.40
	8		95	RPM FEED	3,780 0.14-0.20	3,020 0.18-0.24	2,520 0.14-0.24	2,160 0.16-0.26	1,890 0.18-0.28	1,680 0.20-0.30	1,510 0.22-0.32
	9		50	RPM FEED	1,990 0.12-0.18	1,590 0.14-0.20	1,330 0.12-0.22	1,140 0.13-0.23	990 0.14-0.24	880 0.16-0.26	800 0.18-0.28
	10	High alloyed steel, and tool steel	80	RPM FEED	3,180 0.14-0.20	2,550 0.18-0.24	2,120 0.14-0.24	1,820 0.16-0.26	1,590 0.18-0.28	1,410 0.20-0.30	1,270 0.22-0.32
	11		45	RPM FEED	1,790 0.12-0.18	1,430 0.14-0.20	1,190 0.12-0.22	1,020 0.13-0.23	900 0.14-0.24	800 0.16-0.26	720 0.18-0.28
M	12	Stainless steel	85	RPM FEED	3,380 0.18-0.24	2,710 0.22-0.28	2,250 0.20-0.30	1,930 0.22-0.32	1,690 0.24-0.34	1,500 0.28-0.38	1,350 0.30-0.40
	13		55	RPM FEED	2,190 0.14-0.20	1,750 0.18-0.24	1,460 0.14-0.24	1,250 0.16-0.26	1,090 0.18-0.28	970 0.20-0.30	880 0.22-0.32
K	15	Grey cast iron	120	RPM FEED	4,770 0.16-0.28	3,820 0.24-0.34	3,180 0.26-0.36	2,730 0.28-0.38	2,390 0.30-0.40	2,120 0.32-0.42	1,910 0.34-0.44
	16		95	RPM FEED	3,780 0.18-0.24	3,020 0.22-0.28	2,520 0.20-0.30	2,160 0.22-0.32	1,890 0.24-0.34	1,680 0.28-0.38	1,510 0.30-0.40
	17	Nodular cast iron	120	RPM FEED	4,770 0.16-0.28	3,820 0.24-0.34	3,180 0.26-0.36	2,730 0.28-0.38	2,390 0.30-0.40	2,120 0.32-0.42	1,910 0.34-0.44
	18		85	RPM FEED	3,380 0.18-0.24	2,710 0.22-0.28	2,250 0.20-0.30	1,930 0.22-0.32	1,690 0.24-0.34	1,500 0.28-0.38	1,350 0.30-0.40
	19	Malleable cast iron	95	RPM FEED	3,780 0.16-0.28	3,020 0.24-0.34	2,520 0.26-0.36	2,160 0.28-0.38	1,890 0.30-0.40	1,680 0.32-0.42	1,510 0.34-0.44
	20		85	RPM FEED	3,380 0.18-0.24	2,710 0.22-0.28	2,250 0.20-0.30	1,930 0.22-0.32	1,690 0.24-0.34	1,500 0.28-0.38	1,350 0.30-0.40

► Recommend to reduce the feed rate as following

Feed 100% : DGN523(3×D), DGN526(5×D)

SELECTION GUIDE



HOLEMAKING TOOLS

SERIES
DRILLING DEPTH / STANDARD
LENGTH
SIZE MIN
SIZE MAX
PAGE

PRO ^{NEW}				GENERAL					
DGN523	DGN526	DGN506	DGN508	DH404	DH423 DH443	DH424 DH444	DH406 DH446	DH408 DH448	DH421
3XD	5XD	3XD	5XD	3XD	3XD	5XD	3XD	5XD	8XD
SHORT	LONG	SHORT	LONG	STUB	SHORT	LONG	SHORT	LONG	EXTRA LONG
D3.0	D1.0	D3.0	D1.0	D3.0	D32.0	D1.0	D3.0	D1.0	D3.0
D20.0	D20.0	D20.0	D20.0	D20.0	D20.0	D20.0	D20.0	D20.0	D14.0
8	11	14	16	24	26	29	32	34	37

SURFACE TREATMENT

Z-Coating

TiAIN

SOLID CARBIDE
**DREAM
DRILLS**



Please visit
globalyg1.com/mat
for material search

◎ : Excellent ○ : Good

TECHNICAL DATA : P 97

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment		HB	HRC										
P	1	Non-alloy steel	About 0.15% C	Annealed	125											
	2		About 0.45% C	Annealed	190	13	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
	3		About 0.45% C	Quenched & Tempered	250	25	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
	4		About 0.75% C	Annealed	270	28	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
	5		About 0.75% C	Quenched & Tempered	300	32	○	○	○	○	○	○	○	○	○	○
	6	Low alloy steel		Annealed	180	10	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
	7			Quenched & Tempered	275	29	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
	8			Quenched & Tempered	300	32	○	○	○	○	○	○	○	○	○	○
	9			Quenched & Tempered	350	38	○	○	○	○	○	○	○	○	○	○
	10	High alloyed steel, and tool steel		Annealed	200	15	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
	11			Quenched & Tempered	325	35	○	○	○	○	○	○	○	○	○	○
M	12	Stainless steel	Ferritic / Martensitic	Annealed	200	15	○	○	○	○	○	○	○	○	○	○
	13		Martensitic	Quenched & Tempered	240	23	○	○	○	○	○	○	○	○	○	○
	14		Austenitic		180	10										
K	15	Grey cast iron	Pearlitic / ferritic		180	10	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
	16		Pearlitic (Martensitic)		260	26	○	○	○	○	○	○	○	○	○	○
	17	Nodular cast iron	Ferritic		160	3	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
	18		Pearlitic		250	25	○	○	○	○	○	○	○	○	○	○
	19	Malleable cast iron	Ferritic		130		◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
	20		Pearlitic		230	21	○	○	○	○	○	○	○	○	○	○
N	21	Aluminum-wrought alloy	Not Curable		60											
	22		Curable	Hardened	100											
	23	Aluminum-cast, alloyed	≤ 12% Si, Not Curable		75											
	24		≤ 12% Si, Curable	Hardened	90											
	25		> 12% Si, Not Curable		130											
	26	Copper and Copper Alloys (Bronze / Brass)	Cutting Alloys, PB>1%		110											
	27		CuZn, CuSnZn (Brass)		90											
	28		CuSn, lead-free copper and electrolytic copper		100											
	29	Non Metallic Materials	Duroplastic, Fiber Reinforced Plastic													
	30		Rubber, Wood, etc.													
S	31	Heat Resistant Super Alloys	Fe Based	Annealed	200	15										
	32			Cured	280	30										
	33			Annealed	250	25										
	34		Ni or Co Based	Cured	350	38										
	35			Cast	320	34										
	36	Titanium Alloys	Pure Titanium		400 _m											
	37		Alpha + Beta Alloys	Hardened	1050 _m											
H	38	Hardened steel		Hardened	550	55										
	39			Hardened	630	60										
	40	Chilled Cast Iron		Cast	400	42										
	41	Hardened Cast Iron		Hardened	550	55										