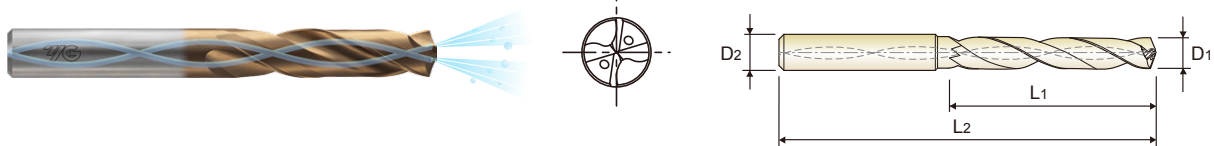


**Z-COATED SOLID CARBIDE DREAM DRILLS
PRO with Coolant Holes (3XD)**

DGN506 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°
20 bar
P. 20

SHORT
3 × D

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
Z-Coating	D1	D2	L1	L2
DGN506030	3.0	6	20	62
DGN506031	3.1	6	20	62
DGN506032	3.2	6	20	62
DGN506033	3.3	6	20	62
DGN506034	3.4	6	20	62
DGN506035	3.5	6	20	62
DGN506036	3.6	6	20	62
DGN506037	3.7	6	20	62
DGN506038	3.8	6	24	66
DGN506039	3.9	6	24	66
DGN506040	4.0	6	24	66
DGN506041	4.1	6	24	66
DGN506042	4.2	6	24	66
DGN506043	4.3	6	24	66
DGN506044	4.4	6	24	66
DGN506045	4.5	6	24	66
DGN506046	4.6	6	24	66
DGN506047	4.7	6	24	66
DGN506048	4.8	6	28	66
DGN506049	4.9	6	28	66
DGN506050	5.0	6	28	66
DGN506051	5.1	6	28	66
DGN506052	5.2	6	28	66
DGN506053	5.3	6	28	66
DGN506054	5.4	6	28	66
DGN506055	5.5	6	28	66

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
Z-Coating	D1	D2	L1	L2
DGN506056	5.6	6	28	66
DGN506057	5.7	6	28	66
DGN506058	5.8	6	28	66
DGN506059	5.9	6	28	66
DGN506060	6.0	6	28	66
DGN506061	6.1	8	34	79
DGN506062	6.2	8	34	79
DGN506063	6.3	8	34	79
DGN506064	6.4	8	34	79
DGN506065	6.5	8	34	79
DGN506066	6.6	8	34	79
DGN506067	6.7	8	34	79
DGN506068	6.8	8	34	79
DGN506069	6.9	8	34	79
DGN506070	7.0	8	34	79
DGN506071	7.1	8	41	79
DGN506072	7.2	8	41	79
DGN506073	7.3	8	41	79
DGN506074	7.4	8	41	79
DGN506075	7.5	8	41	79
DGN506076	7.6	8	41	79
DGN506077	7.7	8	41	79
DGN506078	7.8	8	41	79
DGN506079	7.9	8	41	79
DGN506080	8.0	8	41	79
DGN506081	8.1	10	47	89

▶ Other shank types are available on your request.

▶ NEXT PAGE

◎ : Excellent ○ : Good

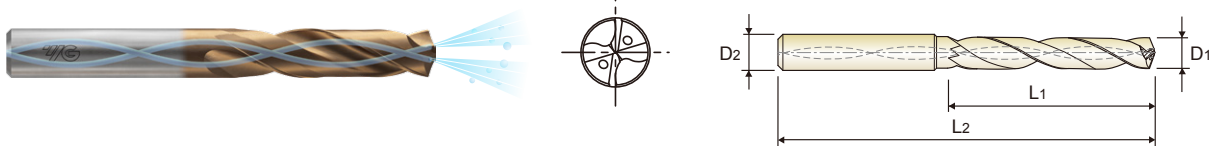
ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	35	38	42	45	48	52	55	58	62	65	68	72	75	78	82	85
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	10	260	160	250	130	230
Recommended	◎	◎	◎	○	◎	◎	◎	○	○	◎	○	○	○	○	◎	○	◎	○	◎	○

ISO	N							S							H						
	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	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommended																					

Z-COATED SOLID CARBIDE DREAM DRILLS PRO with Coolant Holes (3XD)

DGN506 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
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DIN 6537
CARBIDE
h6
m7
140°
20 bar
P. 20

SHORT

3 × D

					Unit : mm				
EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
Z-Coating	D1	D2	L1	L2	Z-Coating	D1	D2	L1	L2
DGN506082	8.2	10	47	89	DGN506110	11.0	12	55	102
DGN506083	8.3	10	47	89	DGN506111	11.1	12	55	102
DGN506084	8.4	10	47	89	DGN506112	11.2	12	55	102
DGN506085	8.5	10	47	89	DGN506113	11.3	12	55	102
DGN506086	8.6	10	47	89	DGN506114	11.4	12	55	102
DGN506087	8.7	10	47	89	DGN506115	11.5	12	55	102
DGN506088	8.8	10	47	89	DGN506116	11.6	12	55	102
DGN506089	8.9	10	47	89	DGN506117	11.7	12	55	102
DGN506090	9.0	10	47	89	DGN506118	11.8	12	55	102
DGN506091	9.1	10	47	89	DGN506119	11.9	12	55	102
DGN506092	9.2	10	47	89	DGN506120	12.0	12	55	102
DGN506093	9.3	10	47	89	DGN506125	12.5	14	60	107
DGN506094	9.4	10	47	89	DGN506130	13.0	14	60	107
DGN506095	9.5	10	47	89	DGN506135	13.5	14	60	107
DGN506096	9.6	10	47	89	DGN506140	14.0	14	60	107
DGN506097	9.7	10	47	89	DGN506145	14.5	16	65	115
DGN506098	9.8	10	47	89	DGN506150	15.0	16	65	115
DGN506099	9.9	10	47	89	DGN506155	15.5	16	65	115
DGN506100	10.0	10	47	89	DGN506160	16.0	16	65	115
DGN506101	10.1	12	55	102	DGN506165	16.5	18	73	123
DGN506102	10.2	12	55	102	DGN506170	17.0	18	73	123
DGN506103	10.3	12	55	102	DGN506175	17.5	18	73	123
DGN506104	10.4	12	55	102	DGN506180	18.0	18	73	123
DGN506105	10.5	12	55	102	DGN506185	18.5	20	79	131
DGN506106	10.6	12	55	102	DGN506190	19.0	20	79	131
DGN506107	10.7	12	55	102	DGN506195	19.5	20	79	131
DGN506108	10.8	12	55	102	DGN506200	20.0	20	79	131
DGN506109	10.9	12	55	102					

▶ Other shank types are available on your request.

◎ : Excellent ○ : Good

ISO Material Description	P										M				K						
	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 Material Description	N										S					H					
	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																					

DGN506, DGN508 SERIES with COOLANT HOLES

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

ISO	VDI 3323	Material Description	Vc	Parameter	Drill Diameter (mm)		Vc	Parameter	Drill Diameter (mm)			
					1.0	2.0			3.0	4.0	5.0	6.0
P	2	Non-alloy steel	95	RPM	30,240	15,120	130	RPM	13,790	10,350	8,280	6,900
				FEED	0.03-0.05	0.05-0.07		FEED	0.06-0.12	0.08-0.14	0.14-0.20	0.16-0.22
			3	95	RPM	30,240	15,120	130	RPM	13,790	10,350	8,280
	FEED				0.03-0.05	0.05-0.07	FEED		0.06-0.12	0.08-0.14	0.14-0.20	0.16-0.22
	4		95	RPM	30,240	15,120	130	RPM	13,790	10,350	8,280	6,900
				FEED	0.03-0.05	0.05-0.07		FEED	0.04-0.10	0.07-0.13	0.10-0.16	0.12-0.18
	5		85	RPM	27,060	13,530	110	RPM	11,670	8,750	7,000	5,840
				FEED	0.03-0.05	0.05-0.07		FEED	0.04-0.10	0.07-0.13	0.10-0.16	0.12-0.18
	6		95	RPM	30,240	15,120	130	RPM	13,790	10,350	8,280	6,900
				FEED	0.03-0.05	0.05-0.07		FEED	0.06-0.12	0.08-0.14	0.14-0.20	0.16-0.22
	7		85	RPM	27,060	13,530	110	RPM	11,670	8,750	7,000	5,840
FEED		0.03-0.05		0.05-0.07	FEED	0.06-0.12		0.08-0.14	0.10-0.20	0.12-0.24		
8	95	RPM	30,240	15,120	110	RPM	11,670	8,750	7,000	5,840		
		FEED	0.02-0.04	0.03-0.05		FEED	0.04-0.10	0.07-0.13	0.10-0.16	0.12-0.18		
9	50	RPM	15,920	7,960	60	RPM	6,370	4,770	3,820	3,180		
		FEED	0.02-0.04	0.03-0.05		FEED	0.03-0.08	0.05-0.11	0.08-0.14	0.10-0.16		
10	70	RPM	22,280	11,140	90	RPM	9,550	7,160	5,730	4,770		
		FEED	0.03-0.05	0.05-0.07		FEED	0.04-0.10	0.07-0.13	0.10-0.16	0.12-0.18		
11	45	RPM	14,320	7,160	50	RPM	5,310	3,980	3,180	2,650		
		FEED	0.02-0.04	0.03-0.05		FEED	0.03-0.08	0.05-0.11	0.08-0.14	0.10-0.16		
M	12	Stainless steel	75	RPM	23,870	11,940	95	RPM	10,080	7,560	6,050	5,040
				FEED	0.03-0.05	0.05-0.07		FEED	0.06-0.12	0.08-0.14	0.14-0.20	0.16-0.22
13	55	RPM	17,510	8,750	65	RPM	6,900	5,170	4,140	3,450		
		FEED	0.02-0.04	0.03-0.05		FEED	0.04-0.10	0.07-0.13	0.10-0.16	0.12-0.18		
K	15	Grey cast iron	95	RPM	30,240	15,120	130	RPM	13,790	10,350	8,280	6,900
				FEED	0.04-0.06	0.04-0.06		FEED	0.08-0.14	0.12-0.18	0.18-0.24	0.14-0.26
	16	90	RPM	28,650	14,320	115	RPM	12,200	9,150	7,320	6,100	
			FEED	0.04-0.06	0.04-0.06		FEED	0.06-0.12	0.08-0.14	0.14-0.20	0.16-0.22	
	17	110	RPM	35,010	17,510	145	RPM	15,380	11,540	9,230	7,690	
			FEED	0.04-0.06	0.04-0.06		FEED	0.08-0.14	0.12-0.18	0.18-0.24	0.14-0.26	
18	75	RPM	23,870	11,940	95	RPM	10,080	7,560	6,050	5,040		
		FEED	0.04-0.06	0.04-0.06		FEED	0.06-0.12	0.08-0.14	0.14-0.20	0.16-0.22		
19	85	RPM	27,060	13,530	110	RPM	11,670	8,750	7,000	5,840		
		FEED	0.04-0.06	0.04-0.06		FEED	0.08-0.14	0.12-0.18	0.18-0.24	0.14-0.26		
20	75	RPM	23,870	11,940	95	RPM	10,080	7,560	6,050	5,040		
		FEED	0.03-0.05	0.05-0.07		FEED	0.06-0.12	0.08-0.14	0.14-0.20	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	130	RPM	5,170	4,140	3,450	2,960	2,590	2,300	2,070
				FEED	0.18-0.24	0.22-0.28	0.20-0.30	0.22-0.32	0.24-0.34	0.28-0.38	0.30-0.40
			3	130	RPM	5,170	4,140	3,450	2,960	2,590	2,300
	FEED				0.18-0.24	0.22-0.28	0.20-0.30	0.22-0.32	0.24-0.34	0.28-0.38	0.30-0.40
	4		130	RPM	5,170	4,140	3,450	2,960	2,590	2,300	2,070
				FEED	0.14-0.20	0.18-0.24	0.14-0.24	0.16-0.26	0.18-0.28	0.20-0.30	0.22-0.32
	5		110	RPM	4,380	3,500	2,920	2,500	2,190	1,950	1,750
				FEED	0.14-0.20	0.18-0.24	0.14-0.24	0.16-0.26	0.18-0.28	0.20-0.30	0.22-0.32
	6		130	RPM	5,170	4,140	3,450	2,960	2,590	2,300	2,070
				FEED	0.18-0.24	0.22-0.28	0.20-0.30	0.22-0.32	0.24-0.34	0.28-0.38	0.30-0.40
	7		110	RPM	4,380	3,500	2,920	2,500	2,190	1,950	1,750
FEED		0.16-0.28		0.20-0.30	0.21-0.30	0.22-0.35	0.25-0.36	0.28-0.38	0.30-0.40		
8	110	RPM	4,380	3,500	2,920	2,500	2,190	1,950	1,750		
		FEED	0.14-0.20	0.18-0.24	0.14-0.24	0.16-0.26	0.18-0.28	0.20-0.30	0.22-0.32		
9	60	RPM	2,390	1,910	1,590	1,360	1,190	1,060	950		
		FEED	0.12-0.18	0.14-0.20	0.12-0.22	0.13-0.23	0.14-0.24	0.16-0.26	0.18-0.28		
10	90	RPM	3,580	2,860	2,390	2,050	1,790	1,590	1,430		
		FEED	0.14-0.20	0.18-0.24	0.14-0.24	0.16-0.26	0.18-0.28	0.20-0.30	0.22-0.32		
11	50	RPM	1,990	1,590	1,330	1,140	990	880	800		
		FEED	0.12-0.18	0.14-0.20	0.12-0.22	0.13-0.23	0.14-0.24	0.16-0.26	0.18-0.28		
M	12	Stainless steel	95	RPM	3,780	3,020	2,520	2,160	1,890	1,680	1,510
				FEED	0.18-0.24	0.22-0.28	0.20-0.30	0.22-0.32	0.24-0.34	0.28-0.38	0.30-0.40
13	65	RPM	2,590	2,070	1,720	1,480	1,290	1,150	1,030		
		FEED	0.14-0.20	0.18-0.24	0.14-0.24	0.16-0.26	0.18-0.28	0.20-0.30	0.22-0.32		
K	15	Grey cast iron	130	RPM	5,170	4,140	3,450	2,960	2,590	2,300	2,070
				FEED	0.16-0.28	0.24-0.34	0.26-0.36	0.28-0.38	0.30-0.40	0.32-0.42	0.34-0.44
	16	115	RPM	4,580	3,660	3,050	2,610	2,290	2,030	1,830	
			FEED	0.18-0.24	0.22-0.28	0.20-0.30	0.22-0.32	0.24-0.34	0.28-0.38	0.30-0.40	
	17	145	RPM	5,770	4,620	3,850	3,300	2,880	2,560	2,310	
			FEED	0.16-0.28	0.24-0.34	0.26-0.36	0.28-0.38	0.30-0.40	0.32-0.42	0.34-0.44	
18	95	RPM	3,780	3,020	2,520	2,160	1,890	1,680	1,510		
		FEED	0.18-0.24	0.22-0.28	0.20-0.30	0.22-0.32	0.24-0.34	0.28-0.38	0.30-0.40		
19	110	RPM	4,380	3,500	2,920	2,500	2,190	1,950	1,750		
		FEED	0.16-0.28	0.24-0.34	0.26-0.36	0.28-0.38	0.30-0.40	0.32-0.42	0.34-0.44		
20	95	RPM	3,780	3,020	2,520	2,160	1,890	1,680	1,510		
		FEED	0.18-0.24	0.22-0.28	0.20-0.30	0.22-0.32	0.24-0.34	0.28-0.38	0.30-0.40		

► Recommend to reduce the feed rate as following

Feed 100% : DGN506(3×D), DGN508(5×D)

SELECTION GUIDE



HOLEMAKING TOOLS

SERIES
 DRILLING DEPTH / STANDARD
 LENGTH
 SIZE MIN
 SIZE MAX
 PAGE

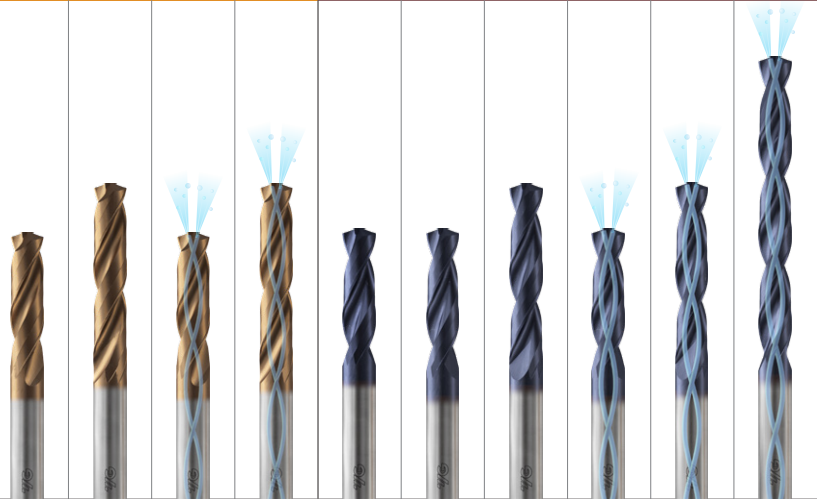
PRO ^{NEW}				GENERAL					
DGN523	DGN526	DGN506	DGN508	DH404	DH423 DH443	DH424 DH444	DH406 DH446	DH408 DH448	DH421
3XD	5XD	3XD	5XD	3XD	3XD	5XD	3XD	5XD	8XD
SHORT	LONG	SHORT	LONG	STUB	SHORT	LONG	SHORT	LONG	EXTRALONG
D3.0	D1.0	D3.0	D1.0	D3.0	D32.0	D1.0	D3.0	D1.0	D3.0
D20.0	D20.0	D20.0	D20.0	D20.0	D20.0	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	DGN523	DGN526	DGN506	DGN508	DH404	DH423 DH443	DH424 DH444	DH406 DH446	DH408 DH448	DH421	
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		Ferritic	130	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	
20	Malleable cast iron	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		Cutting Alloys, PB>1%	110												
	27	Copper and Copper Alloys (Bronze / Brass)	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		Ni or Co Based	Annealed	250 25											
	34			Cured	350 38											
	35			Cast	320 34											
	36	Titanium Alloys	Pure Titanium	400m												
	37		Alpha + Beta Alloys Hardened	1050m												
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												