

## PREZISS GROUP MATERIAL

MATERIAL GROUP	PREZISS # GROUP	MATERIAL	MATERIAL EXAMPLE		STRENGTH (N/mm <sup>2</sup> )	HARDNESS HB	spec. cutting force	Increase value
			DIN	W-Nr			Kc1.1 [N/mm <sup>2</sup> ]	mc
P	P.1	Non alloyed steels: structural, cast, case hardened steels	St37-2 ; 9SMn28 ; St44-2	1.0037 ; 1.0715 ; 1.0044	≤ 500		1500	0,21
	P.2	Non alloyed steels ; Low alloyed steels	St52-2 ; C55 ; 16MnCr5	1.0050 ; 1.0525 ; 1,7131	500-900		1700	0,25
	P.3	Lead alloys	9SMnPb28	1.0718	< 500		2000	0,25
	P.4	Non alloyed / Low alloyed steels Heat resistant structural ; Heat treated ; Nitride ; Tools steel	42CrMo4 ; CK60	1.7225 ; 1.1221	> 900		2200	0,25
	P.5	High alloyed steels	X6CrMo4 ; X165CrMoV12	1.2341 ; 1.2601	> 900		2500	0,25
M	M.1	Stainless steel - Austenitic	X2CrNi189 ; X5CrNiMo1810	1.4306 ; 1.4401	≤ 600		1800	0,21
	M.2	Stainless steel	X8CrNb17 ; X10CrNiMoTi1810	1.4511 ; 1.4571	< 900		2000	0,21
	M.3	Stainless / Heat resisting steel	X10CrAl7 ; X8CrS-38-18	1.4713 ; 1.4862	> 900		2400	0,21
S	S.1	Special alloys: Inconel ; Nimonic	Inconel 718 ; Nimonic 80A	2.4668 ; 2.4631		250	2400	0,25
	S.2	Titanium & titanium alloys	TiAl5Sn2	3.7114	400		1500	0,25
H	H.1	Hardened steels ↓ 45 HRC			1400		3000	0,25
	H.2	Hardened steels ↑ 45 HRC			1800		3700	0,25
K	K.1	Grey cast iron	GG-25 ; GG-35	0.6025 ; 0.6035		180	800	0,28
	K.2	Alloyed gray cast iron	GG-NiCr202	0.6660		250	950	0,28
	K.3	Spheroidal graphite cast iron - ferritic	GGG-40	0.7040	≤ 600	130	1200	0,28
	K.4	Spheroidal graphite cast iron - ferritic - perlitic	GGG-50 ; GGG-55 ; GTW-55	0.7050 ; 0.7055 ; 0.8055		230	1200	0,28
	K.5	Spheroidal graphite cast iron – perlitic Malleable cast iron	GGG-60 ; GTS-65 GGG-80	0.7060 ; 0.8165	> 600	250	1200	0,28
	K.6	Alloyed spheroidal graphite cast iron	GGG-NiCr20-2	0.7661		200	1200	0,28
	K.7	Vermicular cast iron	GGV Ti<0,2 ; GGV Ti>0,2			300	1200	0,28
N	N.1	Copper alloy / Brass / lead alloyed Bronze / lead Bronze ↗ cut	CuZn36Pb3 ; G-CuPb15Sn	2.1182 ; 2.1182		90	550	0,25
	N.2	Copper alloy / Brass / Bronze → cut	CuZn40Al1 ; E-Cu57	2.0550 ; 2.0060		100	550	0,25
	N.3	Copper alloy / Bronze / Alu / Manganese / Phosphorus bronze ↘ cut					550	0,25
	N.4	Wrought aluminum alloy	AlMg1 ; AlMnCu	3.3315 ; 3.0517		60	350	0,25
	N.5	Cast aluminum alloy / Magnesium alloy Si - content ↑ 10 %	GD-AlSi12 ; G-AlSi10Mg	3.2382 ; 3.2383		100	700	0,25
	N.6	Cast aluminum alloy / Magnesium alloy Si - content ↓ 10 %	G-AlSi9Mg ; G-AlSi7Mg	3.2373 ; 3.2371		75	600	0,25
C	C.1	Composite plastics / CFRP / GFRP Plastic matrix (thermosetting)	HTA, IMS				150	0,20
	C.2	Composite plastics / CFRP / GFRP Plastic matrix (thermoplastics)	GMT-PP, PEEK				300	0,30
	C.3	Carbon fiber reinforced Carbon matrix	CF222, CF225, CF226, CF227, CF260				300	0,30