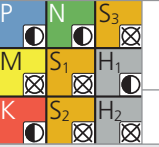
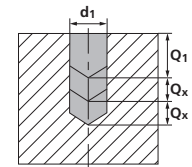
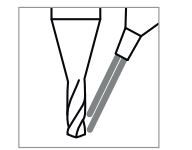


# MiquDrill 200 - coated

RECOMMENDATION FOR USE  
● Excellent | ● Good | ○ Acceptable | ⊗ Not recommended



## DRILLING WITH EXTERNAL COOLING | CUTTING DATA OVERVIEW



Materials group	Material	Mat. no.	DIN	AISI/ASTM/UNS	v <sub>c</sub> [m/min]   [SFM]	Q <sub>1</sub>	Q <sub>2</sub>	f [mm/rev]   [IPR]		
								Ød1		
								0.3–0.6 mm   .012"–.024"	0.6–1.0 mm   .024"–.039"	1.0–1.5 mm   .039"–.059"
			f	f	f					
P	Unalloyed carbon steel Rm < 800 N/mm²	1.0301	C10	AISI 1010	40–70   131 – 230	see I <sub>1</sub>	-	0.009   .00035	0.016   .00063	0.023   .00091
		1.0401	C15	AISI 1015						
		1.1191	C45E/CK45	AISI 1045						
		1.0044	S275JR	AISI 1020						
		1.0715	11SMn30	AISI 1215						
	Low alloyed steel Rm > 900 N/mm²	1.5752	15NiCr13	ASTM 3415 / AISI 3310	30–40   98 – 131	see I <sub>1</sub>	-	0.007   .00028	0.011   .00043	0.015   .00059
		1.7131	16MnCr5	AISI 5115						
		1.3505	100Cr6	AISI 52100						
		1.7225	42CrMo4	AISI 4140						
		1.2842	90MnCrV8	AISI O2						
	High alloyed tool steel Rm < 1200 N/mm²	1.2379	X153CrMoV12	AISI D2	30–60   98 – 197	see I <sub>1</sub>	-	0.004   .00016	0.009   .00035	0.014   .00055
		1.2436	X210CrW12	AISI D4/D6						
1.3343		HS6-5-2C	AISI M2 / UNS T11302							
1.3355		HS18-0-1	AISI T1 / UNS T12001							
M	Stainless steel ferritic	1.4016	X6Cr17	AISI 430 / UNS S43000	30–70   98 – 230	see I <sub>1</sub>	-	0.007   .00028	0.013   .00051	0.023   .00091
		1.4105	X6CrMoS17	AISI 430F						
	Stainless steel martensitic	1.4034	X46Cr13	AISI 420C						
		1.4112	X90CrMoV18	AISI 440B						
	Stainless steel martensitic – PH	1.4542	X5CrNiCuNb 16-4	AISI 630 / ASTM 17-4 PH						
		1.4545	X5CrNiCuNb 15-5	ASTM 15-5 PH						
	Stainless steel austenitic	1.4301	X5CrNi 18-10	AISI 304						
		1.4435	X2CrNiMo 18-14-3	AISI 316L						
1.4441		X2CrNiMo 18-15-3	AISI 316LM							
1.4539		X1NiCrMoCu 25-20-5	AISI 904L							
K	Cast iron	0.6020	GG20	ASTM 30	30–70   98 – 230	see I <sub>1</sub>	-	0.007   .00028	0.013   .00051	0.023   .00091
		0.6030	GG30	ASTM 40B						
		0.7040	GGG40	ASTM 60-40-18						
		0.7060	GGG60	ASTM 80-60-03						
N	Aluminium alloy wrought	3.2315	AlMgSi1	ASTM 6351	80–150   262 – 492	see I <sub>1</sub>	-	0.010   .00039	0.023   .00091	0.038   .00150
		3.4365	AlZnMgCu1.5	ASTM 7075						
	Aluminium alloy cast	3.2163	GD-AlSi9Cu3	ASTM A380	60–100   197 – 328	see I <sub>1</sub>	-	0.008   .00031	0.019   .00075	0.030   .00118
		3.2381	GD-AlSi10Mg	UNS A03590						
	Copper	2.004	Cu-OF / CW008A	UNS C10100	40–70   131 – 230	see I <sub>1</sub>	-	0.008   .00031	0.014   .00055	0.023   .00091
		2.0065	Cu-ETP / CW004A	UNS C11000						
	Brass lead free	2.0321	CuZn37 CW508L	UNS C27400	40–70   131 – 230	see I <sub>1</sub>	-	0.008   .00031	0.014   .00055	0.023   .00091
		2.036	CuZn40 CW509L	UNS C28000						
	Brass, Bronze Rm < 400 N/mm²	2.0401	CuZn39Pb3 / CW614N	UNS C38500	40–150   131 – 492	see I <sub>1</sub>	-	0.008   .00031	0.017   .00067	0.030   .00118
		2.102	CuSn6	UNS C51900						
Bronze Rm < 600 N/mm²	2.0966	CuAl10Ni5Fe4	UNS C63000	30–40   98 – 131	see I <sub>1</sub>	-	0.007   .00028	0.011   .00043	0.015   .00059	
	2.096	CuAl9Mn2	UNS C63200							
S <sub>1</sub>	Super alloys	2.4856		Inconel 625						
		2.4668		Inconel 718						
		2.4617	NiMo28	Hastelloy B-2						
		2.4665	NiCr22Fe18Mo	Hastelloy X						
S <sub>2</sub>	Titanium pure	3.7035	Gr.2	ASTM B348 / F67						
		3.7065	Gr.4	ASTM B348 / F68						
S <sub>3</sub>	Titanium alloys	3.7165	TiAl6V4	ASTM B348 / F136						
		9.9367	TiAl6Nb7	ASTM F1295						
H <sub>1</sub>	Hardened steel < 55 HRC	2.4964	CoCr20W15Ni	Haynes 25						
			CrCoMo28	ASTM F1537						
H <sub>2</sub>	Hardened steel ≥ 55 HRC	1.2510	100MnCrMoW4	AISI O1	20–40   66 – 131	0.5xd1	0.5xd1	0.003   .00012	0.004   .00016	0.007   .00028
		1.2379	X153CrMoV12	AISI D2						