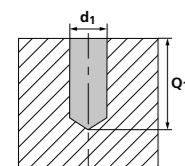
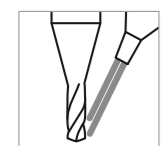


CrazyDrill Alu 10 x d

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

P	N	S ₃
M	S ₁	H ₁
K	S ₂	H ₂

DRILLING WITH EXTERNAL COOLING | CUTTING DATA OVERVIEW



Materials group	Material	Mat. no.	DIN	AISI/ASTM/UNS	v _c [m/min]		Q ₁	Q ₂	f [mm/rev]						
					Low	High			Ød1						
									0.5 mm f	1.0 mm f	1.5 mm f	2.0 mm f	2.5 mm f	3.0 mm f	
P	Unalloyed carbon steel Rm < 800 N/mm ²	1.0301	C10	AISI 1010											
		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/mm ²	1.5752	15NiCr13	ASTM 3415 / AISI 3310											
		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/mm ²	1.2379	X153CrMoV12	AISI D2											
		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									
1.4105	X6CrMoS17			AISI 430F											
1.4034	X46Cr13			AISI 420C											
Stainless steel martensitic	1.4112		X90CrMoV18	AISI 440B											
	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											
K	Cast iron	0.6020	GG20	ASTM 30											
		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	40	300	5xd1	1xd1		0.04	0.07	0.10	0.12
3.4365	AlZnMgCu1.5			ASTM 7075				2xd1							
Aluminium alloy cast	3.2163		GD-AlSi9Cu3	ASTM A380	40	200	5xd1	1xd1		0.05	0.08	0.11	0.15	0.18	0.21
	3.2381		GD-AlSi10Mg	UNS A03590				2xd1							
Copper	2.004		Cu-OF / CW008A	UNS C10100											
	2.0065		Cu-ETP / CW004A	UNS C11000											
Brass lead free	2.0321		CuZn37 CW508L	UNS C27400											
	2.036		CuZn40 CW509L	UNS C28000											
Brass, Bronze Rm < 400 N/mm ²	2.0401		CuZn39Pb3 / CW614N	UNS C38500											
	2.102		CuSn6	UNS C51900											
Bronze Rm < 600 N/mm ²	2.0966		CuAl10Ni5Fe4	UNS C63000											
	2.096	CuAl9Mn2	UNS C63200												
S ₁	Super alloys	2.4856		Inconel 625											
		2.4668		Inconel 718											
		2.4617	NiMo28	Hastelloy B-2											
		2.4665	NiCr22Fe18Mo	Hastelloy X											
S ₂	Titanium pure	3.7035	Gr.2	ASTM B348 / F67											
		3.7065	Gr.4	ASTM B348 / F68											
S ₃	Titanium alloys	3.7165	TiAl6V4	ASTM B348 / F136											
		9.9367	TiAl6Nb7	ASTM F1295											
H ₁	Hardened steel < 55 HRC	2.4964	CoCr20W15Ni	Haynes 25											
			CrCoMo28	ASTM F1537											
H ₂	Hardened steel ≥ 55 HRC	1.2510	100MnCrMoW4	AISI O1											
		1.2379	X153CrMoV12	AISI D2											