



Tool material

Solid Carbide

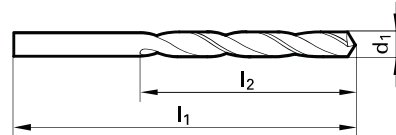
Surface



P	Steel	○	web thinning $\geq \varnothing 2.060$
M	Stainless steel	○	• facet point grinding
K	Cast iron	○	• main cutting edge form straight
N	Aluminum	●	
S	Titanium alloys	○	
H	Hardened steel		

●=Optimal
○=Limited

structural and case hardened steels • free-cutting steels, heat-treatable steels • grey cast iron • bronze, brass • aluminium and Al-alloys • magnesium and magnesium alloys • plastics and fiber reinforced plastics



Speeds and feeds information on pg. 524

Shank diameter = cut diameter

5xD Drills

Diameter (d ₁)			l ₁ mm	t _{max} mm	l ₂ mm	EDP #
inch	wire/ltr	mm				
0.0394		1.00	34.00	10.50	12.00	9007320010000
0.0402	#60	1.02	34.00	10.47	12.00	9007320010200
0.0409	#59	1.04	34.00	10.44	12.00	9007320010400
0.0421	#58	1.07	36.00	12.40	14.00	9007320010700
0.0429	#57	1.09	36.00	12.37	14.00	9007320010900
0.0433		1.10	36.00	12.35	14.00	9007320011000
0.0465	#56	1.18	36.00	12.23	14.00	9007320011800
0.0469	3/64	1.19	38.00	14.22	16.00	9007320011900
0.0472		1.20	38.00	14.20	16.00	9007320012000
0.0512		1.30	38.00	14.05	16.00	9007320013000
0.0520	#55	1.32	38.00	14.02	16.00	9007320013200
0.0551	#54	1.40	40.00	15.90	18.00	9007320014000
0.0591		1.50	40.00	15.75	18.00	9007320015000
0.0594	#53	1.51	43.00	17.74	20.00	9007320015100
0.0626	1/16	1.59	43.00	17.62	20.00	9007320015900
0.0630		1.60	43.00	17.60	20.00	9007320016000
0.0634	#52	1.61	43.00	17.59	20.00	9007320016100
0.0669	#51	1.70	43.00	17.45	20.00	9007320017000
0.0701	#50	1.78	46.00	19.33	22.00	9007320017800
0.0709		1.80	46.00	19.30	22.00	9007320018000
0.0728	#49	1.85	46.00	19.23	22.00	9007320018500
0.0748		1.90	46.00	19.15	22.00	9007320019000
0.0760	#48	1.93	49.00	21.11	24.00	9007320019300
0.0780	5/64	1.98	49.00	21.03	24.00	9007320019800
0.0783	#47	1.99	49.00	21.02	24.00	9007320019900
0.0787		2.00	49.00	21.00	24.00	9007320020000
0.0811	#46	2.06	49.00	20.91	24.00	9007320020600
0.0819	#45	2.08	49.00	20.88	24.00	9007320020800
0.0827		2.10	49.00	20.85	24.00	9007320021000
0.0858	#44	2.18	53.00	23.73	27.00	9007320021800
0.0866		2.20	53.00	23.70	27.00	9007320022000
0.0890	#43	2.26	53.00	23.61	27.00	9007320022600
0.0906		2.30	53.00	23.55	27.00	9007320023000
0.0933	#42	2.37	57.00	26.45	30.00	9007320023700
0.0937	3/32	2.38	57.00	26.43	30.00	9007320023800
0.0945		2.40	57.00	26.40	30.00	9007320024000
0.0961	#41	2.44	57.00	26.34	30.00	9007320024400
0.0980	#40	2.49	57.00	26.27	30.00	9007320024900
0.0984		2.50	57.00	26.25	30.00	9007320025000
0.0996	#39	2.53	57.00	26.21	30.00	9007320025300
0.1016	#38	2.58	57.00	26.13	30.00	9007320025800
0.1024		2.60	57.00	26.10	30.00	9007320026000

Diameter (d ₁)			l ₁ mm	t _{max} mm	l ₂ mm	EDP #
inch	wire/ltr	mm				
0.1039	#37	2.64	57.00	26.04	30.00	9007320026400
0.1063		2.70	61.00	28.95	33.00	9007320027000
0.1067	#36	2.71	61.00	28.94	33.00	9007320027100
0.1094	7/64	2.78	61.00	28.83	33.00	9007320027800
0.1098	#35	2.79	61.00	28.82	33.00	9007320027900
0.1102		2.80	61.00	28.80	33.00	9007320028000
0.1110	#34	2.82	61.00	28.77	33.00	9007320028200
0.1130	#33	2.87	61.00	28.70	33.00	9007320028700
0.1142		2.90	61.00	28.65	33.00	9007320029000
0.1161	#32	2.95	61.00	28.58	33.00	9007320029500
0.1181		3.00	61.00	28.50	33.00	9007320030000
0.1201	#31	3.05	65.00	31.43	36.00	9007320030500
0.1220		3.10	65.00	31.35	36.00	9007320031000
0.1248	1/8	3.17	65.00	31.25	36.00	9007320031700
0.1260		3.20	65.00	31.20	36.00	9007320032000
0.1283	#30	3.26	65.00	31.11	36.00	9007320032600
0.1299		3.30	65.00	31.05	36.00	9007320033000
0.1339		3.40	70.00	33.90	39.00	9007320034000
0.1358	#29	3.45	70.00	33.83	39.00	9007320034500
0.1378		3.50	70.00	33.75	39.00	9007320035000
0.1406	9/64	3.57	70.00	33.65	39.00	9007320035700
0.1417		3.60	70.00	33.60	39.00	9007320036000
0.1441	#27	3.66	70.00	33.51	39.00	9007320036600
0.1457		3.70	70.00	33.45	39.00	9007320037000
0.1469	#26	3.73	70.00	33.41	39.00	9007320037300
0.1496	#25	3.80	75.00	37.30	43.00	9007320038000
0.1520	#24	3.86	75.00	37.21	43.00	9007320038600
0.1535		3.90	75.00	37.15	43.00	9007320039000
0.1539	#23	3.91	75.00	37.14	43.00	9007320039100
0.1563	5/32	3.97	75.00	37.05	43.00	9007320039700
0.1571	#22	3.99	75.00	37.02	43.00	9007320039900
0.1575		4.00	75.00	37.00	43.00	9007320040000
0.1591	#21	4.04	75.00	36.94	43.00	9007320040400
0.1610	#20	4.09	75.00	36.87	43.00	9007320040900
0.1614		4.10	75.00	36.85	43.00	9007320041000
0.1654		4.20	75.00	36.70	43.00	9007320042000
0.1661	#19	4.22	75.00	36.67	43.00	9007320042200
0.1693	#18	4.30	80.00	40.55	47.00	9007320043000
0.1720	11/64	4.37	80.00	40.45	47.00	9007320043700
0.1728	#17	4.39	80.00	40.42	47.00	9007320043900
0.1732		4.40	80.00	40.40	47.00	9007320044000
0.1772	#16	4.50	80.00	40.25	47.00	9007320045000

Diameter (d ₁)			l ₁ mm	t _{max} mm	l ₂ mm	EDP #
inch	wire/ltr	mm				
0.1799	#15	4.57	80.00	40.15	47.00	9007320045700
0.1811		4.60	80.00	40.10	47.00	9007320046000
0.1819	#14	4.62	80.00	40.07	47.00	9007320046200
0.1850	#13	4.70	80.00	39.95	47.00	9007320047000
0.1874	3/16	4.76	86.00	44.86	52.00	9007320047600
0.1890	#12	4.80	86.00	44.80	52.00	9007320048000
0.1909	#11	4.85	86.00	44.73	52.00	9007320048500
0.1929		4.90	86.00	44.65	52.00	9007320049000
0.1937	#10	4.92	86.00	44.62	52.00	9007320049200
0.1961	#9	4.98	86.00	44.53	52.00	9007320049800
0.1969		5.00	86.00	44.50	52.00	9007320050000
0.1992	#8	5.06	86.00	44.41	52.00	9007320050600
0.2008		5.10	86.00	44.35	52.00	9007320051000
0.2012	#7	5.11	86.00	44.34	52.00	9007320051100
0.2031	13/64	5.16	86.00	44.26	52.00	9007320051600
0.2039	#6	5.18	86.00	44.23	52.00	9007320051800
0.2047		5.20	86.00	44.20	52.00	9007320052000
0.2055	#5	5.22	86.00	44.17	52.00	9007320052200
0.2087		5.30	86.00	44.05	52.00	9007320053000
0.2091	#4	5.31	93.00	49.04	57.00	9007320053100
0.2126		5.40	93.00	48.90	57.00	9007320054000
0.2130	#3	5.41	93.00	48.89	57.00	9007320054100
0.2165		5.50	93.00	48.75	57.00	9007320055000
0.2189	7/32	5.56	93.00	48.66	57.00	9007320055600
0.2205		5.60	93.00	48.60	57.00	9007320056000
0.2209	#2	5.61	93.00	48.59	57.00	9007320056100
0.2244		5.70	93.00	48.45	57.00	9007320057000
0.2280	#1	5.79	93.00	48.32	57.00	9007320057900
0.2283		5.80	93.00	48.30	57.00	9007320058000
0.2323		5.90	93.00	48.15	57.00	9007320059000
0.2339	A	5.94	93.00	48.09	57.00	9007320059400
0.2343	15/64	5.95	93.00	48.08	57.00	9007320059500
0.2362		6.00	93.00	48.00	57.00	9007320060000
0.2378	B	6.04	101.00	53.94	63.00	9007320060400
0.2402		6.10	101.00	53.85	63.00	9007320061000
0.2421	C	6.15	101.00	53.78	63.00	9007320061500
0.2441		6.20	101.00	53.70	63.00	9007320062000
0.2461	D	6.25	101.00	53.63	63.00	9007320062500
0.2480		6.30	101.00	53.55	63.00	9007320063000
0.2500	1/4	6.35	101.00	53.48	63.00	9007320063500
0.2520		6.40	101.00	53.40	63.00	9007320064000
0.2559		6.50	101.00	53.25	63.00	9007320065000
0.2571	F	6.53	101.00	53.21	63.00	9007320065300
0.2598		6.60	101.00	53.10	63.00	9007320066000
0.2610	G	6.63	101.00	53.06	63.00	9007320066300
0.2638		6.70	101.00	52.95	63.00	9007320067000
0.2657	17/64	6.75	109.00	58.88	69.00	9007320067500
0.2677		6.80	109.00	58.80	69.00	9007320068000
0.2717	I	6.90	109.00	58.65	69.00	9007320069000
0.2756		7.00	109.00	58.50	69.00	9007320070000
0.2768	J	7.03	109.00	58.46	69.00	9007320070300
0.2795		7.10	109.00	58.35	69.00	9007320071000
0.2811	9/32	7.14	109.00	58.29	69.00	9007320071400
0.2835		7.20	109.00	58.20	69.00	9007320072000
0.2874		7.30	109.00	58.05	69.00	9007320073000
0.2902	L	7.37	109.00	57.95	69.00	9007320073700
0.2913		7.40	109.00	57.90	69.00	9007320074000
0.2949	M	7.49	109.00	57.77	69.00	9007320074900

Diameter (d ₁)			l ₁ mm	t _{max} mm	l ₂ mm	EDP #
inch	wire/ltr	mm				
0.2953		7.50	109.00	57.75	69.00	9007320075000
0.2969	19/64	7.54	117.00	63.69	75.00	9007320075400
0.2992		7.60	117.00	63.60	75.00	9007320076000
0.3020	N	7.67	117.00	63.50	75.00	9007320076700
0.3031		7.70	117.00	63.45	75.00	9007320077000
0.3071		7.80	117.00	63.30	75.00	9007320078000
0.3110		7.90	117.00	63.15	75.00	9007320079000
0.3126	5/16	7.94	117.00	63.09	75.00	9007320079400
0.3150		8.00	117.00	63.00	75.00	9007320080000
0.3161	O	8.03	117.00	62.96	75.00	9007320080300
0.3189		8.10	117.00	62.85	75.00	9007320081000
0.3228	P	8.20	117.00	62.70	75.00	9007320082000
0.3268		8.30	117.00	62.55	75.00	9007320083000
0.3280	21/64	8.33	117.00	62.51	75.00	9007320083300
0.3307		8.40	117.00	62.40	75.00	9007320084000
0.3319	Q	8.43	117.00	62.36	75.00	9007320084300
0.3346		8.50	117.00	62.25	75.00	9007320085000
0.3386		8.60	125.00	68.10	81.00	9007320086000
0.3390	R	8.61	125.00	68.09	81.00	9007320086100
0.3425		8.70	125.00	67.95	81.00	9007320087000
0.3437	11/32	8.73	125.00	67.91	81.00	9007320087300
0.3465		8.80	125.00	67.80	81.00	9007320088000
0.3480	S	8.84	125.00	67.74	81.00	9007320088400
0.3504		8.90	125.00	67.65	81.00	9007320089000
0.3543		9.00	125.00	67.50	81.00	9007320090000
0.3579	T	9.09	125.00	67.37	81.00	9007320090900
0.3583		9.10	125.00	67.35	81.00	9007320091000
0.3594	23/64	9.13	125.00	67.31	81.00	9007320091300
0.3622		9.20	125.00	67.20	81.00	9007320092000
0.3661		9.30	125.00	67.05	81.00	9007320093000
0.3677	U	9.34	125.00	66.99	81.00	9007320093400
0.3701		9.40	125.00	66.90	81.00	9007320094000
0.3740		9.50	125.00	66.75	81.00	9007320095000
0.3748	3/8	9.52	133.00	72.72	87.00	9007320095200
0.3772	V	9.58	133.00	72.63	87.00	9007320095800
0.3780		9.60	133.00	72.60	87.00	9007320096000
0.3819		9.70	133.00	72.45	87.00	9007320097000
0.3858	W	9.80	133.00	72.30	87.00	9007320098000
0.3898		9.90	133.00	72.15	87.00	9007320099000
0.3906	25/64	9.92	133.00	72.12	87.00	9007320099200
0.3937		10.00	133.00	72.00	87.00	9007320100000
0.3969	X	10.08	133.00	71.88	87.00	9007320100800
0.4016		10.20	133.00	71.70	87.00	9007320102000
0.4039	Y	10.26	133.00	71.61	87.00	9007320102600
0.4055		10.30	133.00	71.55	87.00	9007320103000
0.4063	13/32	10.32	133.00	71.52	87.00	9007320103200
0.4130	Z	10.49	133.00	71.27	87.00	9007320104900
0.4134		10.50	133.00	71.25	87.00	9007320105000
0.4220	27/64	10.72	142.00	77.92	94.00	9007320107200
0.4331		11.00	142.00	77.50	94.00	9007320110000
0.4374	7/16	11.11	142.00	77.34	94.00	9007320111100
0.4528		11.50	142.00	76.75	94.00	9007320115000
0.4531	29/64	11.51	142.00	76.74	94.00	9007320115100
0.4689	15/32	11.91	151.00	83.14	101.00	9007320119100
0.4724		12.00	151.00	83.00	101.00	9007320120000
0.4843	31/64	12.30	151.00	82.55	101.00	9007320123000
0.5000	1/2	12.70	151.00	81.95	101.00	9007320127000

Material group	Hardness		SFM	Feed Rate - IPR									
	HRc	Bhn		1/16 in. 1.590 mm	1/8 in. 3.170 mm	1/4 in. 6.350 mm	3/8 in. 9.520 mm	1/2 in. 12.700 mm	5/8 in. 15.870 mm	3/4 in. 19.050 mm	1 in. 25.400 mm	1 1/4 in. 31.750 mm	1 1/2 in. 38.100 mm
Common structural steels	- ≤ 32	≤ 150 ≤ 301	260 225	0.0012 0.0012	0.0030 0.0030	0.0050 0.0050	0.0065 0.0065	0.0080 0.0080					
Free-cutting steels	≤ 25 ≤ 32	≤ 255 ≤ 301	190 185	0.0015 0.0012	0.0040 0.0030	0.0065 0.0050	0.0080 0.0065	0.0100 0.0080					
Unalloyed heat-treatable steels	≤ 20 ≤ 25 ≤ 32	≤ 220 ≤ 255 ≤ 301	230 185 100	0.0012 0.0012 0.0012	0.0030 0.0030 0.0030	0.0050 0.0050 0.0050	0.0065 0.0065 0.0065	0.0080 0.0080 0.0080					
Alloyed heat-treatable steels	≤ 32 ≤ 43	≤ 301 ≤ 402	120 90	0.0012 0.0010	0.0030 0.0025	0.0050 0.0040	0.0065 0.0050	0.0080 0.0065					
Unalloyed case hardened steels	≤ 25	≤ 255	260	0.0015	0.0040	0.0065	0.0080	0.0100					
Alloyed case hardened steels	≤ 32 ≤ 43	≤ 301 ≤ 402	105 80	0.0012 0.0020	0.0030 0.0020	0.0050 0.0030	0.0065 0.0040	0.0080 0.0050					
Nitriding steels	≤ 32 ≤ 43	≤ 301 ≤ 402	90	0.0012	0.0030	0.0050	0.0065	0.0080					
Tool steels	≤ 25 ≤ 43	≤ 255 ≤ 402	120	0.0010	0.0025	0.0040	0.0050	0.0065					
High speed steels	≤ 43	≤ 402											
Spring steels	≤ 38	≤ 354											
Hardened steels	≤ 48 ≤ 66	≤ 460 -	65	0.0010	0.0025	0.0040	0.0050	0.0065					
Stainless steels, sulphured austenitic martensitic	≤ 28 ≤ 36 ≤ 46	≤ 273 ≤ 337 ≤ 435	80 80 80	0.0012 0.0010 0.0010	0.0030 0.0025 0.0025	0.0050 0.0040 0.0040	0.0065 0.0050 0.0050	0.0080 0.0065 0.0065					
Cast iron	≤ 23 ≤ 38	≤ 242 ≤ 354	235 185	0.0012 0.0012	0.0030 0.0030	0.0050 0.0050	0.0065 0.0065	0.0080 0.0080					
Spheroidal graphite iron and malleable cast iron	≤ 23 ≤ 38	≤ 242 ≤ 354	200 145	0.0012 0.0012	0.0030 0.0030	0.0050 0.0050	0.0065 0.0065	0.0080 0.0080					
Chilled cast iron	≤ 38	≤ 354	50	0.0020	0.0020	0.0030	0.0040	0.0050					
New cast materials GGV	≤ 20 ≤ 32	≤ 220 ≤ 301											
New cast materials ADI	≤ 32 ≤ 43	≤ 301 ≤ 402											
Special alloys	≤ 54	≤ 549	45	0.0020	0.0020	0.0030	0.0040	0.0050					
Ti and Ti-alloys	≤ 25 ≤ 43	≤ 255 ≤ 402	50 40	0.0010 0.0020	0.0025 0.0020	0.0040 0.0030	0.0050 0.0040	0.0065 0.0050					
Aluminium and Al-alloys	-	≤ 120	460	0.0017	0.0050	0.0080	0.0100	0.0125					
Al wrought alloys	-	≤ 200	360	0.0015	0.0040	0.0065	0.0080	0.0100					
Al cast alloys ≤ 10 % Si ≤ 24 % Si	- -	≤ 180 ≤ 180	460 360	0.0017 0.0015	0.0050 0.0040	0.0080 0.0065	0.0100 0.0080	0.0125 0.0100					
Magnesium alloys	-	≤ 120	390	0.0015	0.0040	0.0065	0.0080	0.0100					
Copper, low-alloyed	-	≤ 150	260	0.0015	0.0040	0.0065	0.0080	0.0100					
Brass, short-chipping	-	≤ 180	300	0.0015	0.0040	0.0065	0.0080	0.0100					
long-chipping	-	≤ 180	295	0.0015	0.0040	0.0065	0.0080	0.0100					
Bronze, short-chipping	-	≤ 180	290	0.0015	0.0040	0.0065	0.0080	0.0100					
	≤ 25	≤ 255	280	0.0015	0.0040	0.0065	0.0080	0.0100					
Bronze, long-chipping	≤ 25 ≤ 32	≤ 255 ≤ 301	225 160	0.0012 0.0010	0.0030 0.0025	0.0050 0.0040	0.0065 0.0050	0.0080 0.0065					
Duroplastics			130	0.0012	0.0030	0.0050	0.0065	0.0080					
Thermoplastics			160	0.0010	0.0025	0.0040	0.0050	0.0065					
Reinforced plastics - Kevlar													
Reinforced plastics - GFK / CFK			260	0.0010	0.0025	0.0040	0.0050	0.0065					

Material group	Hardness		SFM	Feed Rate - IPR								
	HRc	Bhn		.5 mm	1.0 mm	2.0 mm	2.5 mm	3.15 mm	4.0 mm	5.0 mm	6.3 mm	8 mm
Common structural steels	- ≤ 32	≤ 150 ≤ 301	230 195	0.0003 0.0003	0.0006 0.0006	0.0016 0.0016	0.0020 0.0020	0.0025 0.0025	0.0031 0.0031	0.0031 0.0031	0.0039 0.0039	0.0049 0.0049
Free-cutting steels	≤ 25 ≤ 32	≤ 255 ≤ 301	230 230	0.0003 0.0003	0.0006 0.0006	0.0016 0.0016	0.0020 0.0020	0.0025 0.0025	0.0031 0.0031	0.0031 0.0031	0.0039 0.0039	0.0049 0.0049
Unalloyed heat-treatable steels	≤ 20 ≤ 25 ≤ 32	≤ 220 ≤ 255 ≤ 301	195 165 150	0.0003 0.0003 0.0003	0.0006 0.0006 0.0005	0.0016 0.0016 0.0013	0.0020 0.0020 0.0016	0.0025 0.0025 0.0020	0.0031 0.0031 0.0025	0.0031 0.0031 0.0025	0.0039 0.0039 0.0031	0.0049 0.0049 0.0039
Alloyed heat-treatable steels	≤ 32 ≤ 43	≤ 301 ≤ 402	115 65	0.0003 0.0003	0.0006 0.0005	0.0016 0.0013	0.0020 0.0016	0.0025 0.0020	0.0031 0.0025	0.0031 0.0025	0.0039 0.0031	0.0049 0.0039
Unalloyed case hardened steels	≤ 25	≤ 255	195	0.0004	0.0006	0.0020	0.0025	0.0031	0.0039	0.0039	0.0049	0.0063
Alloyed case hardened steels	≤ 32 ≤ 43	≤ 301 ≤ 402	115 65	0.0003 0.0003	0.0006 0.0005	0.0016 0.0013	0.0020 0.0016	0.0025 0.0020	0.0031 0.0025	0.0031 0.0025	0.0039 0.0031	0.0049 0.0039
Nitriding steels	≤ 32 ≤ 43	≤ 301 ≤ 402	80 65	0.0003 0.0003	0.0006 0.0005	0.0016 0.0013	0.0020 0.0016	0.0025 0.0020	0.0031 0.0025	0.0031 0.0025	0.0039 0.0031	0.0049 0.0039
Tool steels	≤ 25 ≤ 43	≤ 255 ≤ 402	80 50	0.0003 0.0003	0.0005 0.0005	0.0013 0.0013	0.0016 0.0016	0.0020 0.0020	0.0025 0.0025	0.0025 0.0025	0.0031 0.0031	0.0039 0.0039
High speed steels	≤ 43	≤ 402	50	0.0003	0.0005	0.0013	0.0016	0.0020	0.0025	0.0025	0.0031	0.0039
Spring steels	≤ 38	≤ 354	50	0.0002	0.0003	0.0010	0.0013	0.0016	0.0020	0.0020	0.0025	0.0031
Hardened steels	≤ 48 ≤ 66	≤ 460 -										
Stainless steels, sulphured austenitic martensitic	≤ 28 ≤ 36 ≤ 46	≤ 273 ≤ 337 ≤ 435	100 65 50	0.0003 0.0003 0.0003	0.0005 0.0005 0.0005	0.0013 0.0013 0.0013	0.0016 0.0016 0.0016	0.0020 0.0020 0.0020	0.0025 0.0025 0.0025	0.0025 0.0025 0.0025	0.0031 0.0031 0.0031	0.0039 0.0039 0.0039
Cast iron	≤ 23 ≤ 38	≤ 242 ≤ 354	165 165	0.0005 0.0004	0.0007 0.0006	0.0025 0.0020	0.0031 0.0025	0.0039 0.0031	0.0049 0.0039	0.0049 0.0039	0.0063 0.0049	0.0079 0.0063
Spheroidal graphite iron and malleable cast iron	≤ 23 ≤ 38	≤ 242 ≤ 354	195 165	0.0005 0.0004	0.0007 0.0006	0.0025 0.0020	0.0031 0.0025	0.0039 0.0031	0.0049 0.0039	0.0049 0.0039	0.0063 0.0049	0.0079 0.0063
Chilled cast iron	≤ 38	≤ 354										
New cast materials GGV	≤ 20 ≤ 32	≤ 220 ≤ 301										
New cast materials ADI	≤ 32 ≤ 43	≤ 301 ≤ 402										
Special alloys	≤ 54	≤ 549	35	0.0002	0.0002	0.0008	0.0010	0.0013	0.0016	0.0016	0.0020	0.0025
Ti and Ti-alloys	≤ 25 ≤ 43	≤ 255 ≤ 402	35 35	0.0002 0.0002	0.0003 0.0003	0.0010 0.0010	0.0013 0.0013	0.0016 0.0016	0.0020 0.0020	0.0020 0.0020	0.0025 0.0025	0.0031 0.0031
Aluminium and Al-alloys	-	≤ 120	525	0.0006	0.0008	0.0031	0.0039	0.0049	0.0063	0.0063	0.0079	0.0098
Al wrought alloys	-	≤ 200	525	0.0006	0.0008	0.0031	0.0039	0.0049	0.0063	0.0063	0.0079	0.0098
Al cast alloys ≤ 10 % Si ≤ 24 % Si	- -	≤ 180 ≤ 180	330 330	0.0005 0.0005	0.0007 0.0007	0.0025 0.0025	0.0031 0.0031	0.0039 0.0039	0.0049 0.0049	0.0049 0.0049	0.0063 0.0063	0.0079 0.0079
Magnesium alloys	-	≤ 120	460	0.0005	0.0007	0.0025	0.0031	0.0039	0.0049	0.0049	0.0063	0.0079
Copper, low-alloyed	-	≤ 150	395	0.0004	0.0006	0.0020	0.0025	0.0031	0.0039	0.0039	0.0049	0.0063
Brass, short-chipping	-	≤ 180	460	0.0004	0.0006	0.0020	0.0025	0.0031	0.0039	0.0039	0.0049	0.0063
long-chipping	-	≤ 180	295	0.0004	0.0006	0.0020	0.0025	0.0031	0.0039	0.0039	0.0049	0.0063
Bronze, short-chipping	-	≤ 180	230	0.0003	0.0006	0.0016	0.0020	0.0025	0.0031	0.0031	0.0039	0.0049
	≤ 25	≤ 255	195	0.0003	0.0006	0.0016	0.0020	0.0025	0.0031	0.0031	0.0039	0.0049
Bronze, long-chipping	≤ 25 ≤ 32	≤ 255 ≤ 301	130 115	0.0003 0.0003	0.0006 0.0006	0.0016 0.0016	0.0020 0.0020	0.0025 0.0025	0.0031 0.0031	0.0031 0.0031	0.0039 0.0039	0.0049 0.0049
Duroplastics			130	0.0003	0.0006	0.0016	0.0020	0.0025	0.0031	0.0031	0.0039	0.0049
Thermoplastics			195	0.0004	0.0006	0.0020	0.0025	0.0031	0.0039	0.0039	0.0049	0.0063
Reinforced plastics - Kevlar												
Reinforced plastics - GFK / CFK												