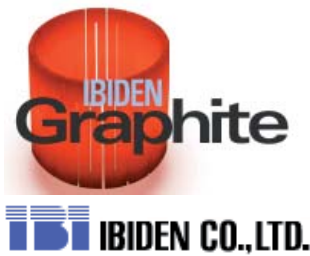
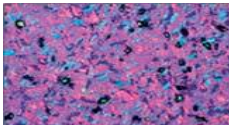
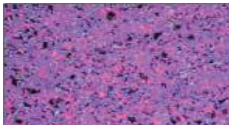
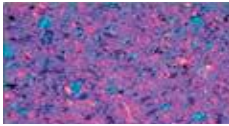


New forms with blocks and blanks

IBIDEN, specialised in electronics and ceramics, produces since 1976 high-class, isostatic manufactured EDM graphite. In the sinking EDM business, the graphite is a more and more deciding factor for quality and performance. F-Tool delivers you prepared blocks and blanks ready to run.



Selected isotropic graphite for EDM

	Max. block size L x W x H mm	Bulk density g/cm ³	Flexural / strength Mpa	Hardness Shore	Average grain µm	Electrical resistivity µΩ cm	Surface roughness VDI
EX 50 	Colour code EX 50 1'000 x 600 x 300	1.75	63.7	55	13	1'250	28
EX 60 	Colour code EX 60 1'020 x 610 x 305	1.80	80.0	62	10	1'300	24
EX 70 	Colour code EX 70 1'000 x 440 x 235	1.85	68.6	70	6	1'500	18

→ Values are typical values

Handling advices

Graphite is suited excellent for the modern high speed milling process. With the new IBIDEN graphite, filigree geometry and high surface finish can be achieved. The handling times shorten articulately compared to copper, and the edges don't have to be deburred in laborious handwork no more.

The following recommendations demonstrate rough directives for the cutting performance and have to be adapted for the respective conditions.

Milling	Cutting speed (m/min)	Feed (mm/tooth)	Cutting material
Roughing	800 ~ 1'000	0.1 ~ 0.8	Carbide, PKD, coated HM
Finishing	1'000	< 0.08	

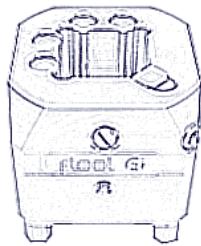
Turning	Cutting speed (m/min)	Feed (mm/rotation)	Rate of cut (mm)	Cutting material
Roughing	800 ~ 1'000	0.1 ~ 0.8		Carbide, PKD, coated HM
Finishing	1'000	< 0.08	0.1 ~ 0.5	

Grinding	Cutting speed (m/min)	Feed (mm/min)	Rate of cut (mm)	Cutting material
	1'000 ~ 2'300	150 ~ 800	< 3	SiC, corundum, diamond

Bandsaw	Cutting speed (m/min)	Feed (mm/min)	Cutting material
	400 ~ 1'000	200 ~ 400	HSS, HM, diamond

Job safety

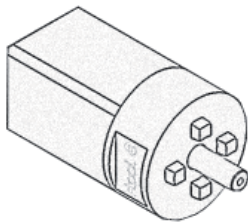
Isostatic manufactured graphite consists of 99.96 % chemically purely carbon, is not toxic and is physiological harmless. However, while handling, the allowable MAK values are to be noticed and a vacuum cleaning while handling is to be recommended.



F-Tool graphite square blank

Form	Dimension (mm)			Quantity	Weight	Code	Quality	
	x	y	z				EX 60	EX 70
	15	15	60	Set of 36 pieces	0.89 kg	G	Article no. FT 01241	FT 01277
	15	15	250	Set of 2 pieces	0.21 kg	G	Article no. FT 01242	FT 01278
	25	25	60	Set of 36 pieces	2.46 kg	G	Article no. FT 01243	FT 01279
	25	25	250	Set of 2 pieces	0.57 kg	G	Article no. FT 01244	FT 01280
	30	30	60	Set of 36 pieces	3.54 kg	G	Article no. FT 01245	FT 01281
	30	30	250	Set of 2 pieces	0.82 kg	G	Article no. FT 01246	FT 01282

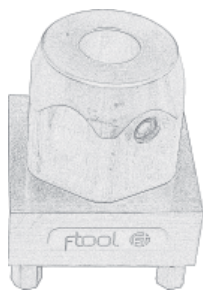
→ Other sizes or other qualities on request



F-Tool graphite square block CIF (cross interface)

Form	Dimension (mm)			Quantity	Weight	Code	Quality	
	x	y	z				EX 60	EX 70
	35	35	35	Set of 10 pieces	0.78 kg	G	Article no. FT 01247	FT 01283
	35	35	50	Set of 10 pieces	1.11 kg	G	Article no. FT 01248	FT 01284
	35	80	35	Set of 10 pieces	1.78 kg	G	Article no. FT 01249	FT 01285
	50	50	35	Set of 10 pieces	1.59 kg	G	Article no. FT 01250	FT 01286
	50	50	50	Set of 10 pieces	2.28 kg	G	Article no. FT 01251	FT 01287

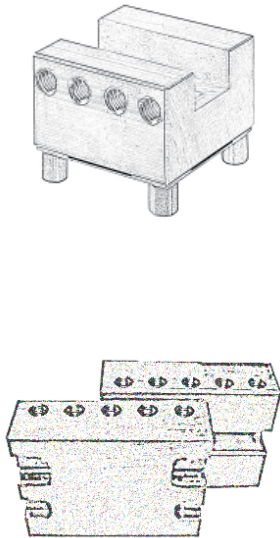
→ Other sizes or other qualities on request



F-Tool graphite cylindrical bar

Form	Dimension (mm)			Quantity	Weight	Code	Quality	
	x		z				EX 60	EX 70
	20		60	Set of 10 pieces	0.34 kg	G	Article no. FT 01252	FT 01288
	20		315	1 piece	0.18 kg	G	Article no. FT 01253	FT 01289
	30		60	Set of 10 pieces	0.77 kg	G	Article no. FT 01254	FT 01290
	30		315	1 piece	0.40 kg	G	Article no. FT 01255	FT 01291

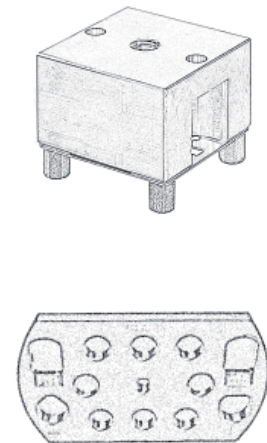
→ Other sizes or other qualities on request



F-Tool graphite rip

Form	Dimension (mm)			Quantity	Weight	Code	Quality	
	x	y	z				EX 60	EX 70
	12	100	60	Set of 10 pieces	1.31 kg	G	Article no. FT 01256	FT 01292
	12	300	60	1 piece	0.39 kg	G	Article no. FT 01257	FT 01293
	20	100	60	Set of 10 pieces	2.19 kg	G	Article no. FT 01258	FT 01294
	20	300	60	1 piece	0.65 kg	G	Article no. FT 01259	FT 01295
	25	100	60	Set of 10 pieces	2.73 kg	G	Article no. FT 01260	FT 01296
	25	300	60	1 piece	0.82 kg	G	Article no. FT 01261	FT 01297
	32	100	60	Set of 10 pieces	3.50 kg	G	Article no. FT 01262	FT 01298
	32	300	60	1 piece	1.05 kg	G	Article no. FT 01263	FT 01299

→ Other sizes or other qualities on request



F-Tool graphite block 2 x M6 a = 40 mm

Form	Dimension (mm)			Quantity	Weight	Code	Quality	
	x	y	z				EX 60	EX 70
	60	60	60	Set of 10 pieces	3.94 kg	G	Article no. FT 01264	FT 01300
	80	80	60	Set of 10 pieces	7.00 kg	G	Article no. FT 01265	FT 01301
	80	120	60	1 piece	1.05 kg	G	Article no. FT 01266	FT 01302
	100	100	60	1 piece	1.09 kg	G	Article no. FT 01267	FT 01303
	100	100	100	1 piece	1.82 kg	G	Article no. FT 01268	FT 01304

→ Other sizes or other qualities on request



F-Tool graphite block 4 x M8 a = 31 mm

Form	Dimension (mm)			Quantity	Weight	Code	Quality	
	x	y	z				EX 60	EX 70
	100	100	50	1 piece	0.91 kg	G	Article no. FT 01269	FT 01305
	100	150	80	1 piece	2.19 kg	G	Article no. FT 01270	FT 01306
	100	200	80	1 piece	2.92 kg	G	Article no. FT 01271	FT 01307

→ Other sizes or other qualities on request

F-Tool graphite free block

Form	Dimension (mm)			Quantity	Weight	Code	Quality			
	x	y	z				EX 60	EX 70		
	300	100	80	1 piece	4.38 kg	G	Article no.	FT 01272	FT 01308	
	300	120	80	1 piece	5.25 kg	G	Article no.	FT 01273	FT 01309	
	300	150	100	1 piece	8.21 kg	G	Article no.	FT 01274	FT 01310	
	300	200	100	1 piece	10.95 kg	G	Article no.	FT 01275	FT 01311	
	Other sizes on request			Price per dm ³	1.82 kg	G	Article no.	FT 01276	FT 01312	

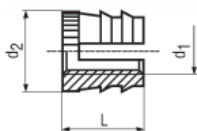
F-Tool graphite full block

Form	Dimension (mm)			Quality	Weight	Article no.	Code	
	x	y	z					
	1'000	600	300	EX 50	315.00 kg	FT 01238	G	
	1'020	610	305	EX 60	341.58 kg	FT 01239	G	
	1'000	440	235	EX 70	191.29 kg	FT 01240	G	



Full customised graphite shapes

We are also welcome to make for you system-oriented electrodes in the conformable electrode holder according to your drawing. The costs will be charged on effort. Or demand us for an offer.

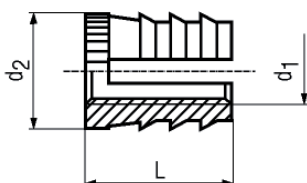


Press-on threaded inserts brass BN1050 M6 Ø 8.4

For the use on graphite blanks.

Article no.	Article	Quantity	Weight	Code	
FT 01442	Press-on threaded inserts Messing BN1050 M6 Ø 8.4	Set of 20 pieces	0.04 kg	B	

d1	M6
d2~	8.66
L	9.5
Hole size	8.4



Press-on threaded inserts brass BN1051 M6 Ø 10.4

For the use on graphite blanks.

Article no.	Article	Quantity	Weight	Code	
FT 01443	Press-on threaded inserts brass BN1051 M6 Ø 10.4	Set of 20 pieces	0.11 kg	B	

d1	M6
d2~	10.67
L	14.3
Hole size	10.4