

# SIGRADUR® Glassy Carbon

## Product Catalogue



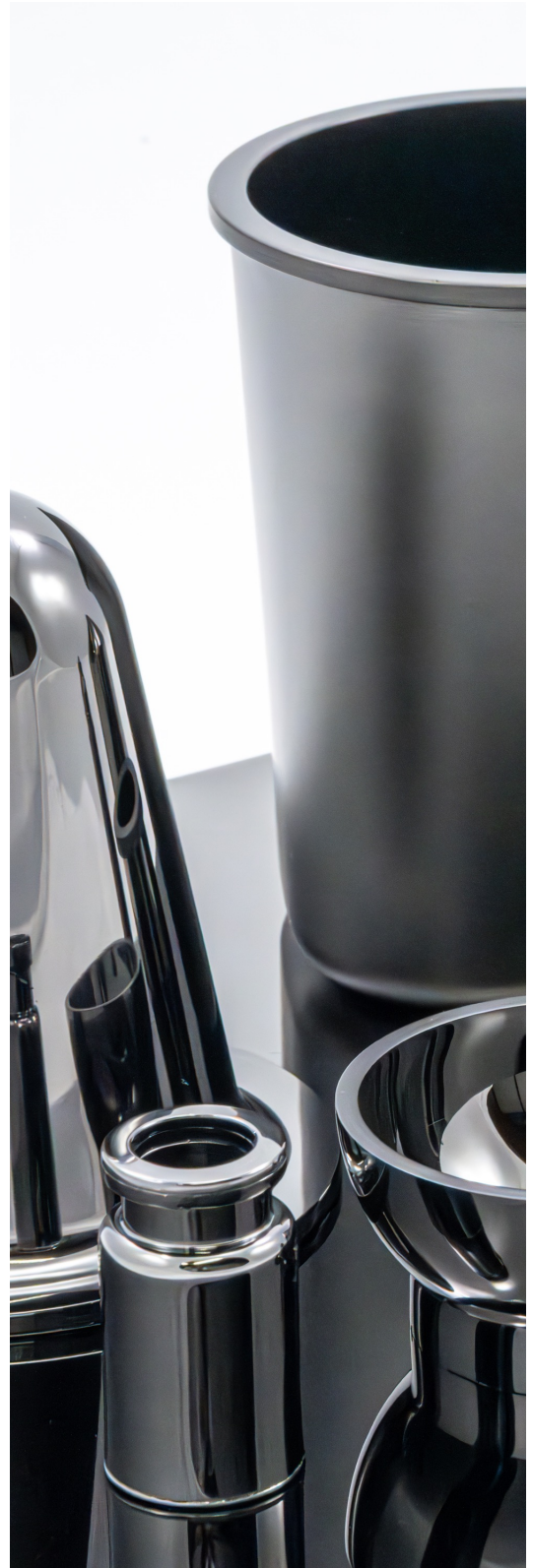
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# Index

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Plates .....	2
Rods .....	3
Tubes .....	4
Disks .....	5
Films .....	6
Powders .....	7
Cylindrical Crucibles .....	8
Crucibles with straight taper .....	9
Crucibles with concave taper .....	10
Crystal Growth Crucibles .....	11
Crystal Growth Crucibles with double taper .....	12
Crucible Liners for Electron Beam Evaporation .....	13
Dishes .....	14
Evaporating Dishes .....	15
Beakers .....	16
Crucible Lids .....	17
Boats (rectangular) .....	18
Boats (rectangular with taper) .....	19
Boats (rounded) .....	20
Boats (pointed) .....	21
Boats with seed crystal channel .....	22
Dental Crucibles and Inserts .....	23



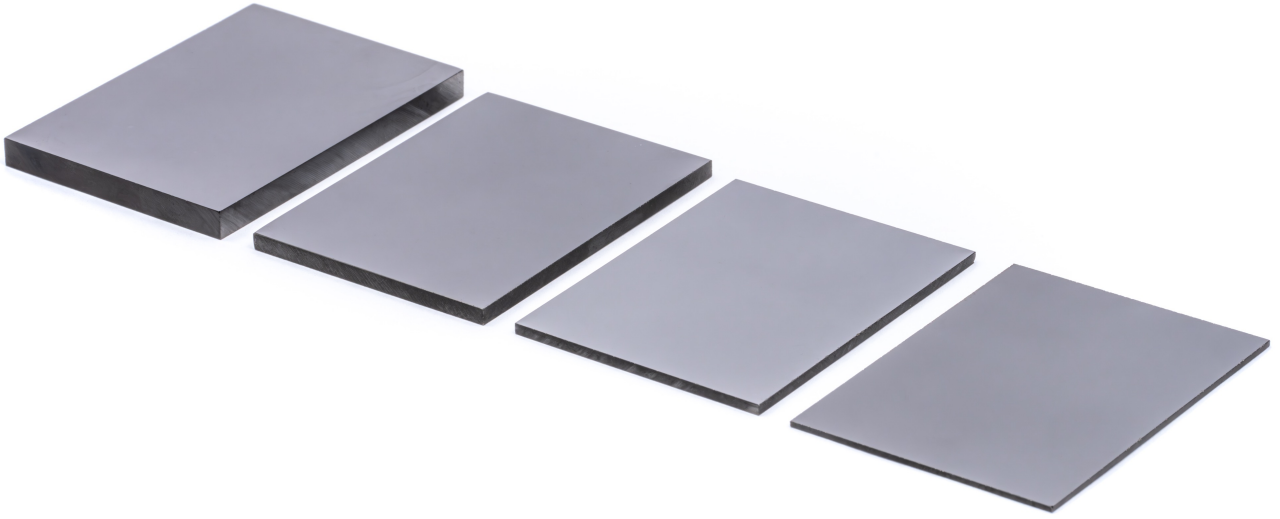
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# Plates

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SIGRADUR® G glassy carbon plates are available in thicknesses of 0.3 mm, 0.5 mm and 1.0-6.0 mm with edge lengths extending up to 300 mm. Surface finish can be lapped or polished on request. Larger plate dimensions as well as custom part machining with water jet, laser or EDM cutting available on request.



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# Rods

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SIGRADUR® G glassy carbon rods are available in diameters from 1 to 10 mm and lengths of up to 600 mm. Custom fittings or chamfers can be machined on request.



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# Tubes

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SIGRADUR® G glassy carbon tubes are available with outer diameters ranging from 10 to 28,5 mm, wall thicknesses of up to 4 mm and lengths of up to 600 mm. Bottom end can be closed off. Custom cuts, tube fittings or chamfers can be machined on request. Please feel free to contact us for special or oversize tube dimensions.

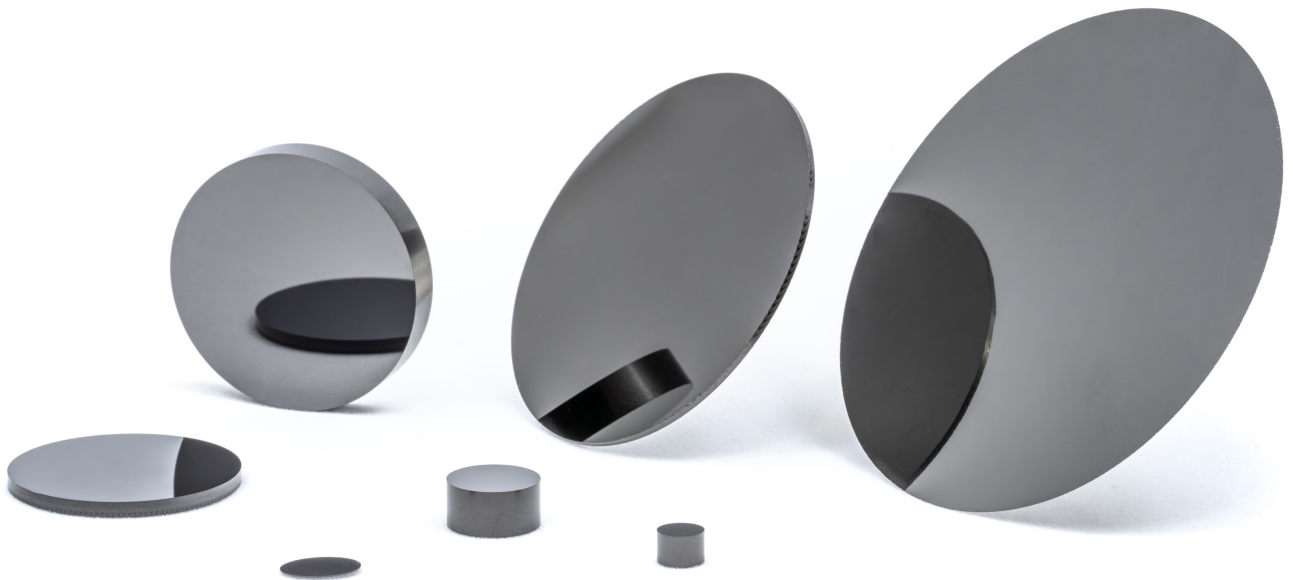
## Standard dimensions:

Outer diameter [mm]	Inner diameter [mm]	Length [mm]
10 mm	3 mm	400 mm
10 mm	4 mm	400 mm
10 mm	5 mm	400 mm
10 mm	6 mm	400 mm
12 mm	7 mm	356 mm
12 mm	8,6 mm	356 mm
12 mm	8,6 mm	420 mm
12 mm	9 mm	400 mm
18 mm	12 mm	356 mm
18 mm	14 mm	542 mm
24 mm	18 mm	440 mm
26 mm	20 mm	600 mm
28,5 mm	20,5 mm	600 mm



## Disks

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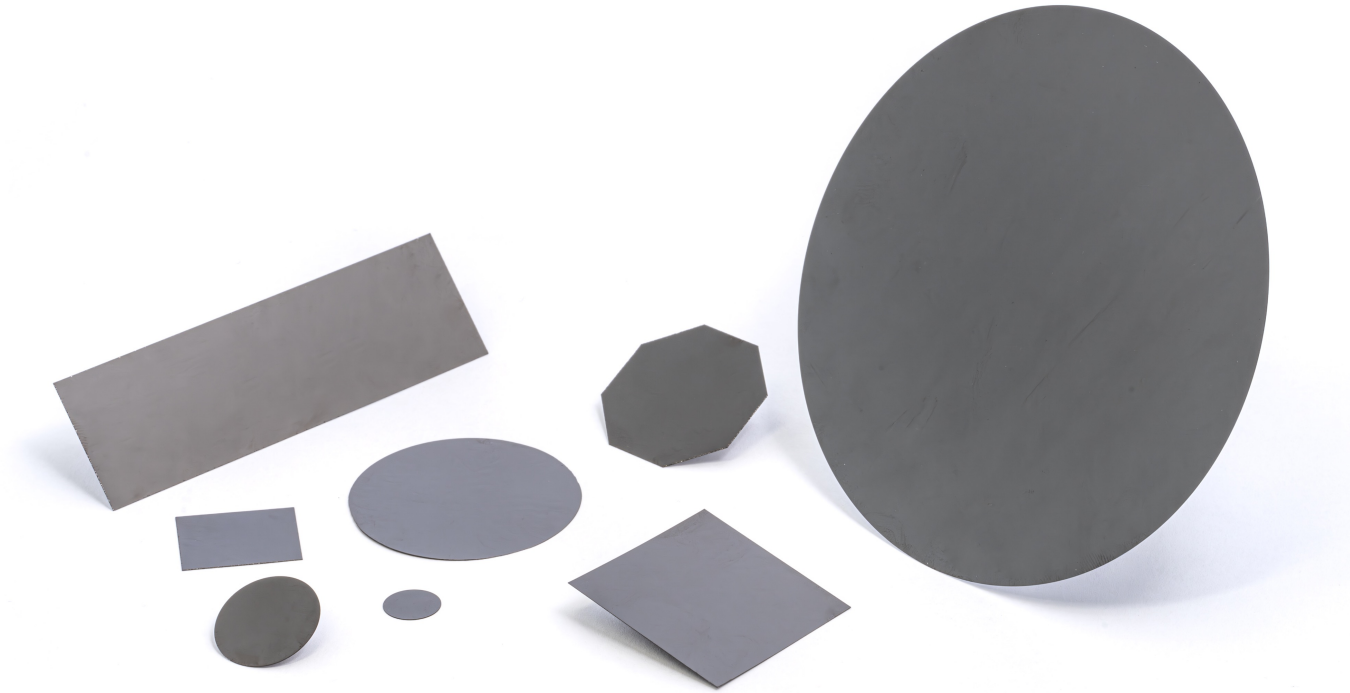
SIGRADUR® G glassy carbon disks are available in diameters up to 300 mm and 0.3 to 6 mm thickness. Surface finish can be lapped or polished on request. Please feel free to contact us for any product customizations.



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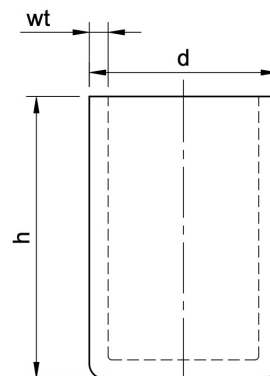
SIGRADUR® K films are available in thicknesses of 60, 100 and 140  $\mu\text{m}$  with variable shapes and sizes. Please note that we do not offer glassy carbon films made from SIGRADUR® G material. Should you require SIGRADUR® G specific material properties in your application please contact us directly to discuss possible solutions.



SIGRADUR® K and SIGRADUR® G powders are available in splintered or spherical configurations with particle sizes ranging from 0.4 to 4000 µm. Please feel free to contact us for any particular powder size ranges.



# Cylindrical Crucibles



Type	Vol. [ml]	d [mm]	h [mm]	wt [mm]
GAZ M20	0,020	3,8	5	0,6
GAZ M25	0,025	6	3,3	1
GAZ M45	0,045	3,8	10	0,6
GAZ M95	0,095	5	8	0,5
GAZ M150	0,15	6	14	1
GAZ M220	0,22	8	12,8	1,5
GAZ M280	0,28	10	12	2
GAZ 006	0,6	13,3	14,5	2,5
GAZ 009	0,9	12,5	20	2,3
GAZ 02	1,3	14,4	18,2	2
GAZ 03	3	15	26	1,4
GAZ 03A	2,8	18,6	18,6	2
GAZ 05	5	15,9	55	3
GAZ 06	6	14,3	73	2
GAZ 1	9	25	37	3
GAZ 015	15	20	105	3
GAZ 2	20	30	45	3
GAZ A2	25	24	101	3
GAZ 3	27	36	43	3

Type	Vol. [ml]	d [mm]	h [mm]	wt [mm]
GAZ 4	46	30	107	3
GAZ 5	50	37	80	4
GAZ 6	50	41	54	3
GAZ 7	60	37	80	2,5
GAZ 7A	73	44	80	5
GAZ 8	80	41,5	90	3,7
GAZ 10	91	40	99	3
GAZ 11	102	49	76	3
GAZ 12	127	50	85	3
GAZ 13	150	56	76	3
GAZ 14	141	49	100	3
GAZ 15	141	46	112	3
GAZ 26	300	74	82	3
GAZ 30	330	60	150	3
GAZ 35	350	67	128	3
GAZ 77	790	104	116	3
GAZ 92	920	88	175	3
GAZ 145	1500	105	200	3
GAZ 516	5160	160	280	3

\*all crucibles are available with suitable lids

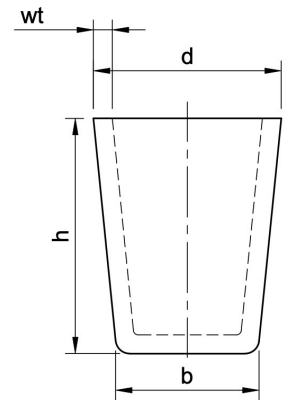


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## Tapered Crucibles (straight taper)



Type	Vol. [ml]	d [mm]	b [mm]	h [mm]	wt [mm]
GAT 007	0,07	6	4	11	1
GAT 2	17	30	26	43	2
GAT 3	18	24	15	85	2
GAT 4	37	50	42	30	3
GAT 6	64	45	44	58	3
GAT 10	105	60	49	60	3
GAT13	131	50	48	90	3
GAT 19	190	45	41	168	3
GAT 28	227	73	68	85	3
GAT 32	320	73	70	100	3
GAT 34	370	69	52	133	2
GAT 55	550	85	75	130	3
GAT 95	945	106	98	135	3
GAT 302	3060	132	122	273	3

\*all crucibles are available with suitable lids

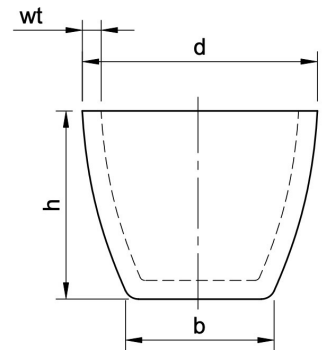


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## Tapered Crucibles (concave taper)



Type	Vol. [ml]	d [mm]	b [mm]	h [mm]	wt [mm]
GAK 1	8	31	17	30	3
GAK 2	17	35	18	38	3
GAK 3	35	44	23	48	3
GAK 6	67	52	26	56	3
GAK 10	116	70	34	55	3
GAK 15	143	64	33	76	3
GAK 120	1220	130	62	122	3
GAK 300	3000	174	88	175	3

\*all crucibles are available with suitable lids

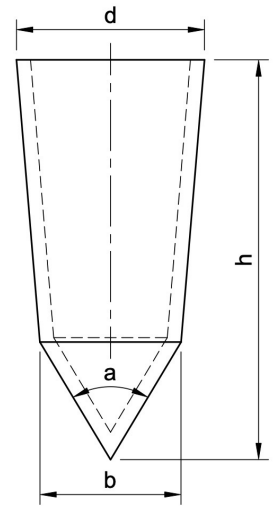


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# Crystal Growth Crucibles



Type	Vol. [ml]	d [mm]	b [mm]	h [mm]	a [deg°]
GCG 07	7	14	14	102	90
GCG 010	10	18	16	130	30
GCG 16	16	20	18	120	120
GCG 25	25	19	19	140	60
GCG 30	28	23	19	160	30
GCG 100	95	36	36	185	30
GCG 125	125	40	38	150	90
GCG 400	350	57	57	197	90
GCG 140	1380	85	85	307	90

With seed crystal channel:

GCG 320	325	62	57	205	90
GCG 200	2000	121	119	255	120
GCG D60	1380	58	58	274	90

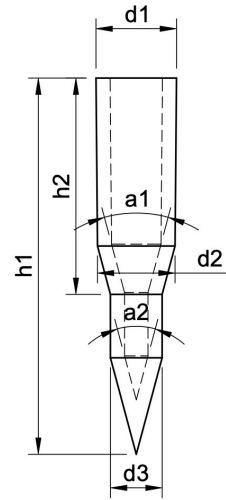


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# Crystal Growth Crucibles (with double taper)



Type	Vol. [ml]	d1 [mm]	d2 [mm]	d3 [mm]	a1 [deg°]	a2 [deg°]	h1 [mm]	h2 [mm]
GCG 009	9	18	16	11	30	30	130	96
GCG 017	17	22	21	11	30	30	130	96

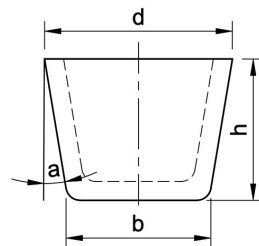


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# Crucible Liners for Electron Beam Evaporation



Type	Vol. [ml]	d [mm]	b [mm]	h [mm]	a [deg°]
GEB 02	1,8	21	10	10	30
GEB 07	4	29	22	15	15
GEB 1	8	34	24	18	15
GEB 2	10	38	28	20	15
GEB 3	16	47	37	18	15
GEB 4	30	50	35	26	15
GEB 5	30	51	38	27	15

\*all crucibles are available with suitable lids



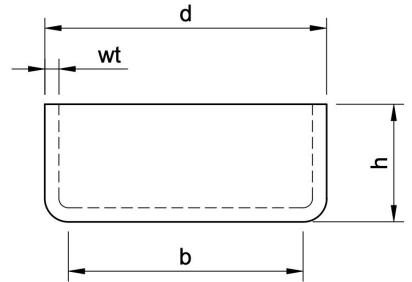
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# Dishes

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Type	Vol. [ml]	d [mm]	b [mm]	h [mm]	wt [mm]
GEK 2	20	46	26	20	3
GEK 10	95	73	69	31	3
GEK 90	900	158	158	55	4



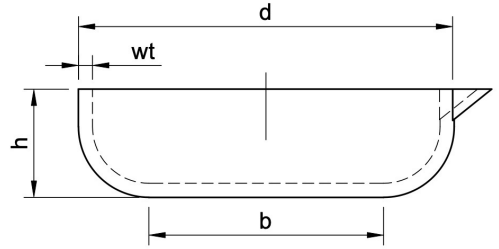
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# Evaporating Dishes

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Type	Vol. [ml]	d [mm]	b [mm]	h [mm]	wt [mm]
GDK 10	150	106	74	25	3
GDK 30	350	141	65	38	3



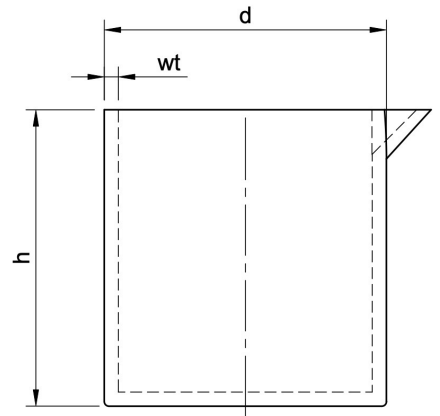
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# Beakers



Type	Vol. [ml]	d [mm]	h [mm]	wt [mm]
GAB 3	38	38	50	3
GAB 5	50	39	59	3
GAB 10	115	54	70	3
GAB 25	275	74	82	3
GAB 40	430	90	86	3



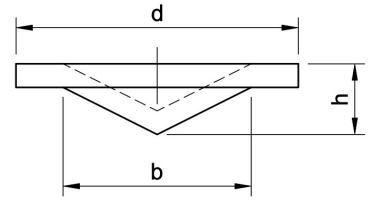
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# Crucible Lids

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Type	d [mm]	b [mm]	h [mm]
GAD 1	37	23	8
GAD 2	50	36	8
GAD 3	90	71	17

Crucible lids made of SIGRADUR® G glassy carbon are available in three standard sizes and can also be repurposed as sample carrier or crucible material. Please note that we offer custom made lids for all other crucible dimensions as well.

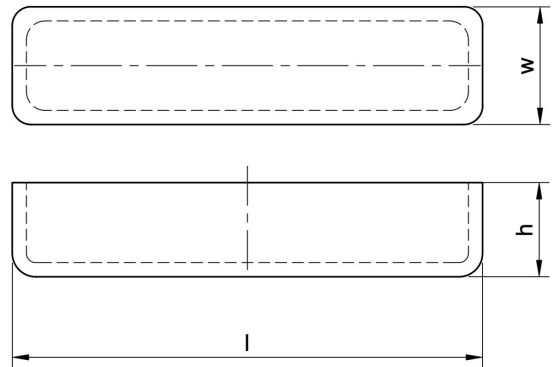


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## Boats (rectangular)



Type	Vol. [ml]	l [mm]	w [mm]	h [mm]
GCH 5	40	76	33	25
GCH 13	130	306	26	25
GCH 130	1300	305	110	49
GCH 430	4300	460	104	107

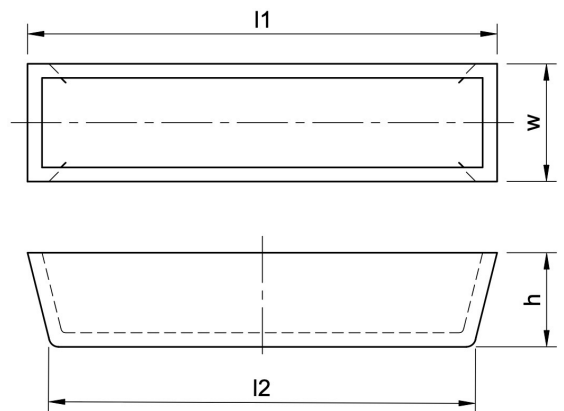


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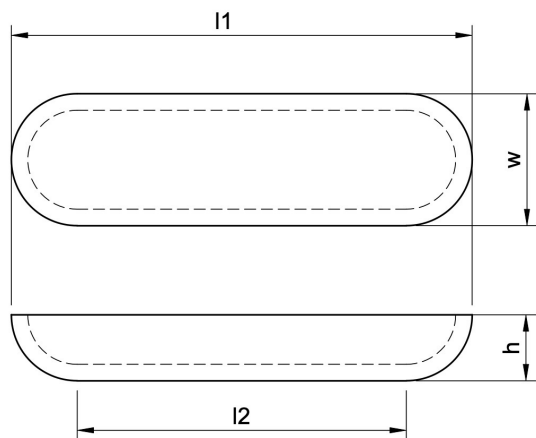
## Boats (rectangular with taper)



Type	Vol. [ml]	l1 [mm]	l2 [mm]	w [mm]	h [mm]
GCH 02	2	29	28	16	10
GCH 03	3	53	50	16	10
GCH 1	10	103	100	16	10
GCH 2	15	119	117	22	12
GCH 14	140	127	122	60	30
GCH 19	190	241	232	60	19
GCH 380	3800	475	455	95	110



## Boats (rounded)



Type	Vol. [ml]	l1 [mm]	l2 [mm]	w [mm]	h [mm]
GCH 8	80	295	275	22	20
GCH 20	205	500	460	39	20
GCH 21	210	395	360	29	28
GCH 29	290	300	240	55	30
GCH 60	595	710	655	52	27

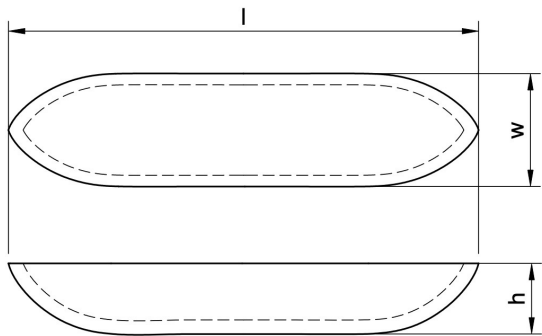


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## Boats (pointed)



Type	Vol. [ml]	l1 [mm]	w [mm]	h [mm]
GCH 75	750	600	70	35
GCH 110	1100	830	70	35

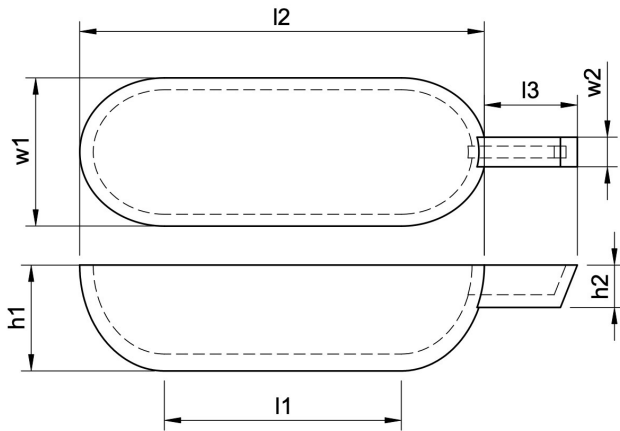


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# Boats with seed crystal channel



Type	Vol. [ml]	l1 [mm]	l2 [mm]	l3 [mm]	w1 [mm]	w2 [mm]	h1 [mm]	h2 [mm]
GCH 3	16	170	120	30	23	12	11	8
GCH 4	40	300	260	33	21	15	10	8
GCH 160	1600	465	290	70	105	22	63	21



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# Dental Crucibles and Inserts



Type	Ø [mm]	h [mm]
DeguDent TS 1, TS 1a, TS 2, TS 3, Multicast Compact	24	100
DeguDent Prestomat A1, Prestomat B1	24	75
Heraeus Combilab CL-G, CL-G 97	18	63
Heraeus Combilab CL-G 77, CL-G 94	24	83,5
Heraeus Combilab CL-G 2002	24	100



Type	Ø [mm]	h [mm]
Girrbach Technocast	23	99
Schütz Alpha Vac	23	99
Heimerle & Meule Ecomat	23	99
Wieland Drucomat	21	93
Bego Fornax	31	46
Bego Nautilus	30	36
Heraeus Combilab CL-IM, CL-IG, CL-I-95, Heracast IQ	30	30
Linn HFS3-Standard, DK2-Minitherm	30	40
Linn DKV2-Vaku, HFS-Vac	30	40
Schütz Microtronic	28	43
Erscem/Cowadental Centricast	34	58
Galloni Fusus, Modular	27	47
Manfredi Multihertz, Century D, Neutrodyn	28	59



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# Contact

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We are committed to providing outstanding glassy carbon products for a wide range of high-tech applications. Thanks to over 30 years of experience in the field of manufacturing and processing of ultrapure SIGRADUR® glassy carbon products we are able to satisfy highest customer demands. Please feel free to contact us for product inquiries or custom glassy carbon product solutions:

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