



MATERIAL GRADE: K-99. (Recrystallised Alumina)

**REFRACTORY CRUCIBLES**

to withstand temperature upto 1800 C. (AL<sub>2</sub>O<sub>3</sub> 99%+)

**CYLINDRICAL SHAPE CRUCIBLES**



O/D MM	I/D MM	HEIGHT MM	VOLUME ML	PRICE INR
8	6	50	0.2	147
20	16	30	5	253
30	26	38	15	330
28	20	40	20	343
30	24	50	25	419
34	28	48	30	432
50	44	31	45	515
38	34	58	45	515
50	41	50	60	623
37	30	75	60	623
50	44	72	100	744
90	80	30	150	974
70	64	55	150	974
57	53	87	170	1,112
65	57	85	230	1,281
67	60	103	240	1,434
83	73	80	300	1,731
85	75	100	450	2,791
85	75	150	600	2,904

**CONICAL TALL FORM CRUCIBLE**



UPPER O/D MM	LOWER O/D MM	HEIGHT MM	VOLUME ML	PRICE INR
25	15	30	6	253
32	17	37	15	276
32	23	42	18-C	300
35	20	44	20	367
39	24	36	25	374
38	21	47	30	389
42	23	52	40	411
48	22	64	65	666
58	28	70	100	812
63	30	75	140	1,104
70	34	80	180	1,312
74	36	85	240	1,939
90	55	120	500	3,098
103	65	136	750	5,995

**CONICAL SHORT FORM CRUCIBLE**



UPPER O/D MM	LOWER O/D MM	HEIGHT MM	VOLUME ML	PRICE INR
29	14	23	6	253
39	25	25	12	300
41	18	35	25	437
47	20	40	35	453
54	24	50	60	646
60	30	50	80	668
63	30	57	95	794
85	40	85	300	1,973
110	75	75	400	2,631
100	52	102	500	3,098

TOLERANCE OF +/- 2 MM ON ALL DIMENSIK SIZES ABOVE ARE APPROXIMATE



KUMAR CERAMICS PRIVATE LIMITED

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Decide with Confidence

MATERIAL GRADE: K-99. (Recrystallised Alumina)

**REFRACTORY DISH**

to withstand temperature upto 1800 C. (AL<sub>2</sub>O<sub>3</sub> 99%+)



OUTER DIAMETER MM	HEIGHT MM	VOLUME ML	PRICE (INR)
40	10	10	276
44	10	15	289
48	28	40	538
50	12	20	384
60	12	25	449
60	20	35	520
69	23	45	619
72	14	35	529
75	27	85	762
85	35	140	1,237
90	30	140	1,237
100	44	250	1,434
111	65	550	2,515
177	44	700	3,429

TOLERANCE OF +/- 2 MM ON ALL DIMENSII SIZES ABOVE ARE APPROXIMATE

MATERIAL GRADE : K-99

**REFRACTORY ROUND DISC**

to withstand temperature upto 1800 C. (AL<sub>2</sub>O<sub>3</sub> 99%+)



DIAMETER MM	WALL THICKNESS (MM)	PRICE (INR)
10	4-5	116
15	4-5	147
20	4-5	176
25	4-5	191
28	4-5	223
32	4-5	223
38	4-5	253
48	4-5	286
58	4-5	330
75	4-5	457
90	4-5	618
100	4-5	667
115	4-5	955
125	4-5	1,163
150	4-5	1,436

TOLERANCE OF +/- 2 MM ON ALL DIMENSII SIZES ABOVE ARE APPROXIMATE

MATERIAL GRADE : K-50P

**REFRACTORY CRUCIBLES**

to withstand temperature upto 1600 C.



UPPER O/D MM	LOWER O/D MM	HEIGHT MM	WALL THICKNESS	VOLUME ML	PRICE (INR)
240	145	150	12-14	3800	2623
190	130	190	12-14	3400	1,072
150	90	180	9-10	1700	634
120	70	150	8-9	850	572
110	70	130	8-9	500	512
92	60	102	8-9	250	443
67	31	83	8-9	150	385
68	45	63	8-9	85	368

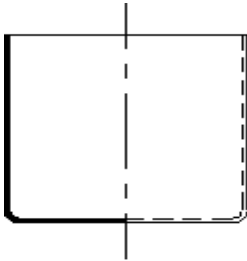


MATERIAL GRADE: K-60. ( Mullite) Gas Tight

**REFRACTORY CRUCIBLES**

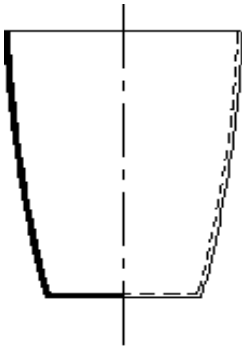
to withstand temperature upto 1600 C.

**CYLINDRICAL SHAPE CRUCIBLES**



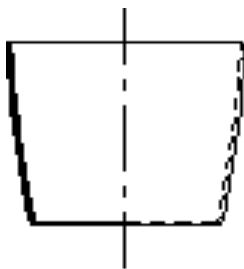
O/D MM	I/D MM	HEIGHT MM	VOLUME ML	PRICE (INR) EACH
20	16	30	05	53
30	26	40	15	56
32	29	45	30	99
50	44	31	40	119
38	34	58	45	159
50	44	72	100	378
65	57	92	230	442
83	73	80	300	456
90	80	30	150	384
85	75	100	450	391
85	75	150	500	511

**CONICAL TALL FORM CRUCIBLE**



UPPER O/D MM	LOWER O/D MM	HEIGHT MM	VOLUME ML	PRICE (INR) EACH
25	15	30	10	53
32	17	37	15	56
35	20	44	20	92
38	21	47	30	99
42	23	52	40	131
48	22	64	65	351
60	28	70	100	372
70	34	83	180	384
74	36	88	250	442
90	55	120	500	511
103	65	136	750	648

**CONICAL SHORT FORM CRUCIBLE**



UPPER O/D MM	LOWER O/D MM	HEIGHT MM	VOLUME ML	PRICE (INR) EACH
29	14	23	6	53
41	18	35	25	93
47	20	40	35	128
54	24	50	60	327
60	30	50	80	351
63	30	57	95	372
85	40	85	300	456
110	75	75	400	489
100	52	102	500	511

TOLERANCE OF +/- 2 MM ON ALL DIMENSIONS SIZES ABOVE ARE APPROXIMATE



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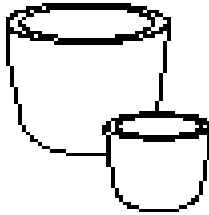


Decide with Confidence

MATERIAL GRADE: K-60. ( Mullite) Gas Tight

**REFRACTORY CRUCIBLES**

to withstand temperature upto 1600 C.



UPPER O/D MM	LOWER O/D MM	HEIGHT MM	WALL THICKNESS	VOLUME ML	PRICE (INR)
165	113	160	6-8	3400	930
130	78	152	6-8	1700	634
104	60	127	6-8	850	572
95	60	110	6-8	500	512
80	52	86	6-8	250	443
63	30	75	6-8	140	385
59	39	53	6-8	85	368

TOLERANCE OF +/- 2 MM ON ALL DIMENSIONS SIZES ABOVE ARE APPROXIMATE

**KUMAR CERAMICS PRIVATE LIMITED**

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Decide with Confidence

**MATERIAL GRADE: K-60.****REFRACTORY COMBUSTION BOATS WITH EYE**

to withstand temperature upto 1600 C.

WIDTH	HEIGHT	LENGTH	PRICE IN INR
22 MM	17 MM	120 MM	23.70
16 MM	11 MM	105 MM	6.60
13 MM	11 MM	88 MM	5.65
12 MM	10 MM	88 MM	5.55
12 MM	9/10 MM	80 MM	5.40

TOLERANCE : +/- 1MM IN WIDTH, HEIGHT &amp; +/- 2 MM LENGTH.

**MATERIAL GRADE: K-99. (Recrystallised Alumina)****REFRACTORY COMBUSTION BOATS WITH HANDLE & EYE**

to withstand temperature upto 1800 C.

WIDTH	HEIGHT	LENGTH	PRICE IN INR
30 MM	20 MM	120 MM	595
25 MM	25MM	100 MM	476
20 MM	40 MM	100 MM	661
24 MM	17MM	123MM	443
16 MM	11 MM	105 MM	376
13 MM	11 MM	88 MM	300
12 MM	10 MM	86 MM	246
12 MM	10 MM	88 MM 'T'	252
12 MM	9/10 MM	78 MM	229
16 MM	12 MM	72 MM	330
20 MM	13 MM	69 MM	339
23 MM	15 MM	61 MM	320
21 MM	12 MM	58 MM	250
8 MM	8 MM	48 MM	220
7 MM	6 MM	28 MM	158

TOLERANCE : +/- 1MM IN WIDTH, HEIGHT &amp; +/- 2 MM LENGTH.

**MATERIAL GRADE: K-99. (Recrystallised Alumina)****REFRACTORY COMBUSTION BOATS WITHOUT EYE**

to withstand temperature upto 1800 C.

WIDTH	HEIGHT	LENGTH	PRICE IN INR
11 MM	10 MM	20 MM	161
20MM	18MM	110MM	495
30 MM	15 MM	120 MM	524
30 MM	20 MM	100 MM	564
30MM	19MM	117MM	612
27 MM	21 MM	135 MM	681
23 MM	19 MM	200 MM	821
50 MM	51 MM	54 MM	833
56 MM	48 MM	140 MM	2638
56 MM	46 MM	185 MM	3288

TOLERANCE : +/- 1MM IN WIDTH, HEIGHT &amp; +/- 2 MM LENGTH.

**KUMAR CERAMICS PRIVATE LIMITED****PRICE LIST NO. : KCPL / 11 / 2018**

**MATERIAL GRADE: K-99. (Recrystallised Alumina)**  
**REFRACTORY COMBUSTION BOATS/TRAYS WITHOUT HANDLE**  
**to withstand temperature upto 1800 C.**



WIDTH	HEIGHT	LENGTH	APP. CAPACITY (ML)	PRICE IN INR
30 MM	13 MM	82 MM	15	606
30 MM	21 MM	100 MM	30	713
92 MM	10 MM	100 MM	40	791
45 MM	21 MM	100 MM	45	791
100 MM	10 MM	119 MM	60	833
40 MM	20 MM	148 MM	60	833
50 MM	30 MM	97 MM	75	950
40 MM	26 MM	124 MM	80	960
60 MM	30 MM	85 MM	100	1,251
58 MM	30 MM	120 MM	145	2,094
100 MM	26 MM	118 MM	165	2,585
97 MM	25 MM	97 MM	175	2,743
94 MM	38 MM	117 MM	200	3,134
145 MM	15 MM	195 MM	250	3,886
43 MM	30 MM	290 MM	280	4,352
75 MM	51MM	150 MM	380	5,084
90 MM	51MM	150 MM	475	6,355
75 MM	51 MM	198 MM	490	6,555
100 MM	60 MM	200 MM	800	7,147

TOLERANCE : +/- 1MM IN WIDTH, HEIGHT & +/- 2 MM LENGTH.

**MATERIAL GRADE: K-60.**  
**REFRACTORY COMBUSTION BOATS/TRAYS WITHOUT HANDLE**  
**to withstand temperature upto 1600 C.**

WIDTH	HEIGHT	LENGTH	APP. CAPACITY (ML)	PRICE IN INR
30 MM	13 MM	82 MM	15	187
30 MM	21 MM	100 MM	30	223
92 MM	10 MM	100 MM	40	241
45 MM	21 MM	100 MM	45	241
100 MM	10 MM	119 MM	60	275
40 MM	20 MM	148 MM	60	328
50 MM	30 MM	97 MM	75	415
60 MM	30 MM	85 MM	100	488
58 MM	30 MM	120 MM	145	708
97 MM	25 MM	97 MM	165	731
100 MM	26 MM	118 MM	175	848
94 MM	38 MM	117 MM	200	970
145 MM	15 MM	195 MM	250	1,690
43 MM	30 MM	290 MM	280	1,405
75 MM	51MM	150 MM	380	1,642
90 MM	51MM	150 MM	475	2,072
75 MM	51 MM	198 MM	490	2,137
100 MM	60 MM	200 MM	800	2,533

TOLERANCE : +/- 1MM IN WIDTH, HEIGHT & +/- 2 MM LENGTH.



## KUMAR CERAMICS PRIVATE LIMITED

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### **KUMAR Alumina Lab-ware (99.8%) products:-**

KUMAR Alumina Lab-wares are made from ALCOA Alumina imported from North America. These can withstand very high temperature and offer good chemical resistance at high temperature. These Lab-ware are made by slip casting process/extrusion process and the purity of sintered alumina is maintained to more than 99.7%.

### **The Chemical Composition of our Alumina Products is:**

Composition (%)	Al <sub>2</sub> O <sub>3</sub>	>99.8
	SiO <sub>2</sub>	<0.03
	Fe <sub>2</sub> O <sub>3</sub>	<0.02
	Na <sub>2</sub> O	<0.07
	MgO	<0.05
	CaO	<0.02

Fired density is 3.90 gm/cc.

Colour and Lustre: Ivory colour with vitreous luster, translucent.

### **Guidelines for use of High Alumina Products:**

- Alumina products should be completely dry before usage. If they get wet, let the crucibles or tubes dry naturally. If these have to be dried in a dryer or an oven, care should be taken that the drying takes place slowly.
- To prevent thermal stress cracks on the lab-ware products, temperature change rate should not exceed 150<sup>0</sup> C/Hr.
- Avoid contact of heated alumina products with a cold surface.
- Alumina crucibles should not be heated by torch or furnaces that cannot control temperature-control rate. The uneven heating can cause cracks
- Particular shapes of the Lab-ware products are suitable for specific uses. Hence, it is the responsibility of the user to determine the suitability of the product as per his use.
- Improper loading of materials in the alumina lab-ware should be avoided as this may cause uneven heating of the lab-ware resulting in cracks

### **Recommended Usage:**

99.8% alumina wares are useful to chemists, metallurgists and other high temperature works demanding results free of any contamination. These also find application in process equipments and scientific equipment. These are meant for use in reducing and oxidizing atmospheres, and these offer high resistance to alkalis and other fluxes. These are suitable for glass melting process including borosilicate glass.

### **The Characteristic Features of High Alumina Products:**

The high alumina-ware have excellent Thermal Conductivity, high mechanical strength, excellent electrical insulation, zero open porosity, and a high degree of chemical inertness. These chemical-ware, having high temperature tolerance, are suitable under conditions of irradiation and are compatible in reactor design. The products have been tested to be ultra-high vacuum compatible.

### **Some of the KUMAR brand High Alumina Lab-ware are:**

High Alumina Boats, High Alumina Crucibles, High Alumina Trays and Dishes, High Alumina Sleeves/Beads and High Alumina Tubes.