

KUMAR CERAMICS PRIVATE LIMITED

PRICE LIST NO. : KCPL / 11 / 2018



MATERIAL GRADE: K-60.

REFRACTORY COMBUSTION BOATS WITH EYE

to withstand temperature upto 1600 C.



to withistand temperature upto 1000 o:				
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 & +/- 2 MM LENGTH.				

MATERIAL GRADE: K-99. (Recrystalised 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

MATERIAL GRADE: K-99. (Recrystalised 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 & +/- 2 MM LENGTH.			



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

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MATERIAL GRADE: K-99. (Recrystalised Alumina) REFRACTORY COMBUSTION BOATS/TRAYS WITHOUT HANDLE to withstand temperature upto 1800 C. APP. CAPACITY (ML) WIDTH **HEIGHT** LENGTH 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

MATERIAL GRADE: K	MATERIAL GRADE: K-60.				
REFRACTORY COMB	USTION BOATS/TRAY	S WITHOUT HANDLE			
to withstand temperat	ure 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 W	DLERANCE : +/- 1MM IN WIDTH, HEIGHT & +/- 2 MM LENGTH.				



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KUMAR Alumina Lab-ware (60%) products:-

<u>KUMAR K-60 Alumina Lab-wares</u> are made from Mullite Grains. These can withstand very high temperature and offer good chemical resistance at high temperature. These Lab-wares are made by slip casting process/extrusion process and the purity of sintered alumina is maintained to 60% (approx.).

The Chemical Composition of our K-60 Alumina Products is:

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	Al ₂ O ₃	59.78
	SiO ₂	35.06
	Fe ₂ O ₃	0.42
Composition (%)	Na₂O	0.25
	MgO	1.88
	CaO	1.81
	TiO ₂	0.35
	K ₂ O	0.18
	LOI	0.27

Fired density is 2.8 gm/cc.

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

Guidelines for use of K-60 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° C/Hr.
- Avoid contact of heated alumina products with a cold surface.
- Alumina crucibles/tubes 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-wares should be avoided as this may cause uneven heating of the lab-ware resulting in cracks

Recommended Usage:

60% 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 alkalies and other fluxes. These are suitable for glass melting process including borosilicate glass.

The Characteristic Features of High Alumina Products:

The high alumina-wares have excellent Thermal Conductivity, high mechanical strength, excellent electrical insulation, zero open porosity, and a high degree of chemical inertness. These chemical-wares, 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-wares are:

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



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

<u>KUMAR Alumina Lab-wares</u> 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-wares 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:

	Al_2O_3	>99.8
	SiO ₂	<0.03
	Fe₂O₃	<0.02
Composition (%)	Na₂O	<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° 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-wares 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 alkalies and other fluxes. These are suitable for glass melting process including borosilicate glass.

The Characteristic Features of High Alumina Products:

The high alumina-wares have excellent Thermal Conductivity, high mechanical strength, excellent electrical insulation, zero open porosity, and a high degree of chemical inertness. These chemical-wares, 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-wares are:

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