KUMAR CERAMICS PRIVATE LIMITED



PRICE LIST NO. KCPL / 11 / 2018

MATERIAL	GRADE : K-	50					\sim					
REFRACTORY SHEATHS OPEN BOTH ENDS												
to withstan	d temperatu	re upto 1	550 C. (with coll	ar)							
											· · · ·	
SHEATHS O/D	IN MM	10	12	15	20	24	29	32	37	40	44	58
DIAM	IETER					10						
SHEATHS I/D I	N MM	6	8	11	14	18	22	25	30	33	37	50
COLLAR O/D IN MM		15	20	22	29	32	37	44	48	48	58	68
COLLAR HEIGHT IN MM		15	15	15	20	20	25	25	25	15	10	10
OVERALL LENGTH												
OVER	UPTO		PRICES IN INR									
100MM	200MM	57	85	97	106	144	207	209	263	330	544	665
201MM	400MM	93	139	140	236	270	360	373	451	542	765	924
401MM	600MM	120	178	191	268	315	441	459	824	980	996	1156
TOLERANCE : +/- 2 MM IN O/D & I/D & 3 MM IN LENGTH.												
COLLAR TUBES ARE AVAILABLE IN A NUMBER OF SIZES OTHER THAN ABOVE SEND IN YOUR SPECIFIC ENQUIRY												
MATERIAL GRADE: K-50												
REFRACTORY SHEATHS OPEN BOTH ENDS												
to withstand temperature upto 1550 C. (Porous)												
OUTER M	M	6	8	10	12	15	20	22	24	24	29	32
DIAM	IETER											
INNER MI	Ν	4	5	4	6	8	12	15	17	15	20	20
LENGTH PRICES IN INR												
OVER LIPTO												

LENGTH												
OVER	UPTO					FN						
100 MM	200 MM		73	76	82	94	103	119	140	140	203	205
201 MM	300 MM	59	82	86	94	115	136	146	167	167	219	224
301 MM	400 MM	82	125	130	136	138	228	239	261	261	354	364
401 MM	550 MM	97	146	151	155	167	266	273	285	285	386	397
551 MM	650 MM	111	167	173	176	188	289	292	326	326	436	471
651 MM	750 MM	179	267	277	290	307	483	513	540	540	708	740
751 MM	1000 MM	238	354	368	387	408	640	684	772	772	952	971
1001 MM	1200 MM	279	420	433	454	467	684	745	812	812	1043	1071
1201 MM	1350 MM	348	523	540	567	584	854	931	1015	1015	1300	1335
1351 MM	1500 MM			718	755	778	1136	1238	1351	1351	1719	1776
TOLERANCE : +/- 1 MM IN O/D & I/D & +/- 3 MM IN 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:

	Al ₂ O ₃	59.78
	SiO ₂	35.06
	Fe ₂ O ₃	0.42
Composition (%)	Na ₂ O	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 temperaturecontrol 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 ₂ O ₃	>99.8
	SiO ₂	<0.03
	Fe ₂ O ₃	<0.02
Composition (%)	Na ₂ 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° 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.