



CERAMOX

A division of
Wonderstone Limited

ADVANCED CERAMIC TECHNOLOGY ... OUT OF AFRICA

TECHNICAL PRODUCT APPLICATIONS

Ceramox manufactures and distributes a comprehensive range of 99.8% Alumina Laboratory Ware, the bulk of which is listed on the reverse side of this brochure. The many shapes range in size from a few millilitres to several litres and provide cost effective and innovative solutions for many Laboratory Researchers.

Applications

Most applications are for labs at platinum and coal mines, research institutions, universities and schools where academic research, exploration, metal processing and rapid thermal cycling take place. High purity Alumina products are able to withstand very high temperatures (1750 °C) under reducing, inert or high vacuum conditions. Thinner wall thicknesses enhance temperature equalisation and hence provide good thermal shock resistance.

CERAMOX

99.8% ALUMINA LABORATORY WARE



Typical Material Properties

Alumina content (% by mass) .. 99.8%
Density 3.9 gm/cc
Porosity <0.5%
Maximum operating temperature. 1750 °C
Hardness(Rockwell 45 N)80
.....(Vickers) 14.4 GPa
Fracture Toughness 3-4 MPa/m²
Compressive Strength2500 MPa
Thermal Conductivity30 W/m²K
Coefficient of Thermal Expansion...8 x10⁻⁶/°C
Dielectric Strength (ac) 7.8 kV/mm

Precautions

- Alumina products are fragile. Avoid impact during unpacking, handling and cleaning
- Check for micro-cracks before use
- Overloading can increase uneven heating.
- Do not direct a naked flame at the product nor place it too close to an exposed heating element.
- Avoid thermal shock by ramping up kiln temperatures at rates between 150 °C and 300 °C/hour for the first hour. Cooling time is generally half that of heating.
- Storage should be in dry conditions. If wet, the crucible should be dried naturally or slowly in a drier before use.
- High purity abrasive paste should be used for the most effective and contamination-free cleaning.

Assore House, 15 Fricker Road,
Illovo Boulevard, Johannesburg,
2196, South Africa.
Private Bag X03, Northlands,
2116, South Africa.
Tel: +27 11 770-6845,
Fax: +27 11 268-6441
e-mail: ceramox@assore.com
Web: www.ceramox.edx.co.za



ISO 9001: 2000 ISO 14001:2004

99.8% Alumina Laboratory Ware



CONICAL CRUCIBLES				
Product code	Volume cm ³	Rim Ø mm	Base Ø mm	Height mm
AOH015	15	29	18	35
AOH030	30	37	23	44
AOH045	45	43	27	52
AOH100	100	57	33	68
AOH250	250	74	44	90
AOH1000	1000	118	69	145



SQUAT CRUCIBLES				
Product code	Volume cm ³	Rim Ø mm	Base Ø mm	Height mm
AOW030	30	45	20	34
AOW040	40	50	23	38
AOW060	60	54	24	50
AOW070	70	60	27	47
AOW080	80	60	26	50
AOW100	100	68	31	53



CYLINDRICAL CRUCIBLES				
Product code	Volume cm ³	Rim Ø mm	Internal Ø mm	Height mm
AYF010	10	24	20	32
AYF030	30	33	29	46
AYF050	50	38	34	55
AYF060	60	38	34	65
AYF100	100	49	43	70
AYF250	250	65	59	94
AYF500	500	81	74	118



COKING CRUCIBLES, LIDS AND STAND				
Product code	Volume cm ³	Rim Ø mm	Internal Ø mm	Height mm
ACCS01	na			
ACCL01	na			
ACC022	22	28	25	45



BOATS				
Product code	Volume cm ³	Length mm	Width mm	Height mm
AOB005	5	74	25	10
AOB010	10	80	30	12
AOB015	15	100	33	12
AOB060	60	122	47	20
AOB075	75	150	50	20



TRAYS				
Product code	Volume cm ³	Length mm	Width mm	Height mm
AT400	400	148	100	28
AT600	600	193	130	25
AT800	800	180	130	36
AT4000	4000	355	180	73