WATERGROUND BONE ASH

HIGH TEMPERATURE CALCINED (HTC) GRADE - PRODUCT DATA

PREPARATION

HTC grade waterground bone ash is prepared from natural raw material that is continuously tested in our Etruria laboratories, to maintain the highest quality product. The material is calcined in continuous operation rotary kilns where temperature and atmosphere are stringently controlled. The hand selected calcined bone is then milled in water, passed through a series of screens and magnets to eliminate contamination and dewatered to produce the finished product.

CONTROL PROPERTIES

The following tests are carried out by Jesse Shirley laboratory staff to ensure that the product complies with the exacting standards required to manufacture the finest bone china. This product can be supplied locally as a fluid material or as semi-dry 'noodle' product.

Particle size

Nominal values:
X-ray sedigraph 91% finer than 14µm equivalent spherical diameter.
Malvern mastersizer: 82% finer than 14µm.

Moisture Content

Nominally 12.5% ± 2.0 %

Level of Deflocculation

1650 gm/litre ± 50gm/litre or as required by customer
(Redispersed slip density at 300^{o} overswing using rotational torsion viscometer with $^{11}/_{16}^{th}$ bob and 30 SWG wire).

Chemical Analysis

Years Chemical analysis data shown below: -

	Average %	S Dev.
SiO_2	1.56	0.28
TiO_2	0.01	—
Al_2O_3	0.26	0.13
Fe_2O_3	0.04	0.01
CaO	53.00	0.14
MgO	1.17	0.02
K_2O	0.02	0.01
Na_2O	0.71	0.09
P_2O_5	40.12	0.08
ZrO_2	0.02	—
BaO	0.04	—
SrO	0.07	0.01
Residual	2.91	0.23

Jesse Shirley
Etruria • Stoke on Trent • Staffordshire • ST4 7AF • England
Telephone +44(0)1782 212473 • Fax +44(0)1782 287308 • e-mail: sales@jesseshirley.com • www.jesseshirley.com