



LEADERS IN IBA PROCESSING

Bespoke processing solutions for the
treatment of incinerator bottom ash.

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Introduction to Fortis



Fortis has led the way in IBA processing and marketing within the UK for almost ten years.

During this time, we have recycled, processed and distributed over 1,000,000 tonnes of IBA Aggregate into the construction industry. In doing so, we have played an integral part in diverting over 4,000,000 tonnes of waste from landfill.

Our IBA Division has seen considerable and continual investment in the last decade. We have specialist teams and departments that are dedicated to operational and technical excellence.

In the last two years, we have successfully designed, built and commissioned two state-of-the-art IBA processing facilities, which recycle IBA from the Hampshire and Oxfordshire energy recovery facilities.

If you would like to visit any of our facilities, or for more information, please do not hesitate to contact me.

Lee Thompson
Managing Director & Founder Member / Director of the
Manufacturers of IBA Aggregates Association

“Fortis are leaders in the quest for zero waste and are committed to achieving a circular economy.”

Boasting
100%
recycling
rates on all
our Fortis IBA
Processing
Facilities.

FORTIS
Preserving our Natural Resources

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Fortis are leaders in the recycling and production of IBA, creating a quality secondary aggregate for use within the construction industry.

IBA Aggregate has been widely used in construction for nearly 20 years and over 7,000,000 tonnes have been used to date in the UK. Its use has been approved by the Environment Agency, the Highways Agency and a number of local authorities. Fortis are seen as a partner of choice in government waste management projects because of our experience and exemplary standards.

Fortis IBA Aggregate is processed and distributed in accordance with Environment Agency guidelines and recommendations. These procedures are designed to protect human health and the environment. As a fundamental part of our duty of care responsibilities, we carry out a comprehensive three tier risk assessment of every site and every contract prior to supplying IBA Aggregate. This provides certainty and confidence for our clients as well as providing a reliable audit trail for all the IBA Aggregate we market. Social responsibility is at the very core of our business and our dedication to excellence in health and safety and environmental stewardship are the foundations of all our working practices and ethics.

In producing one tonne of IBA Aggregate:

- 4.76 tonnes of waste is processed through the energy recovery facilities.
- 619kwh of power is supplied back into the National Grid.
- At least 95% residual municipal waste is diverted away from landfill.
- Carbon footprint is reduced by producing a valuable secondary aggregate locally.
- Natural resources are preserved.

Processing Technology



Fortis IBA's bespoke processing technology recycles the residues from the incineration of municipal waste, diverting it from landfill and creating a quality aggregate which is used widely within the construction industry.

Upon arrival at one of our Fortis IBA processing facilities, the IBA is quarantined and stored on site. Our excavator operator prepares the ash into windrows where it is then left to 'age' for 6-8 weeks, and until such time that the team receives formal third party confirmation that it has been characterised correctly and is compliant under EWC code 19 01 12. Once formal confirmation is received, and the IBA has matured, it is then processed and distributed in accordance with Environment Agency Guidance and our own code of practice, which sets the legal obligations to ensure that activities using IBA Aggregate do not pose risk to human health or the environment.

The Process

A loading shovel feeds the IBA into a feed hopper, where the belt feeder then regulates the flow rate of material entering the plant. A primary overband magnet recovers the large ferrous metals as they pass under it, these are then sold on for recycling and reuse.

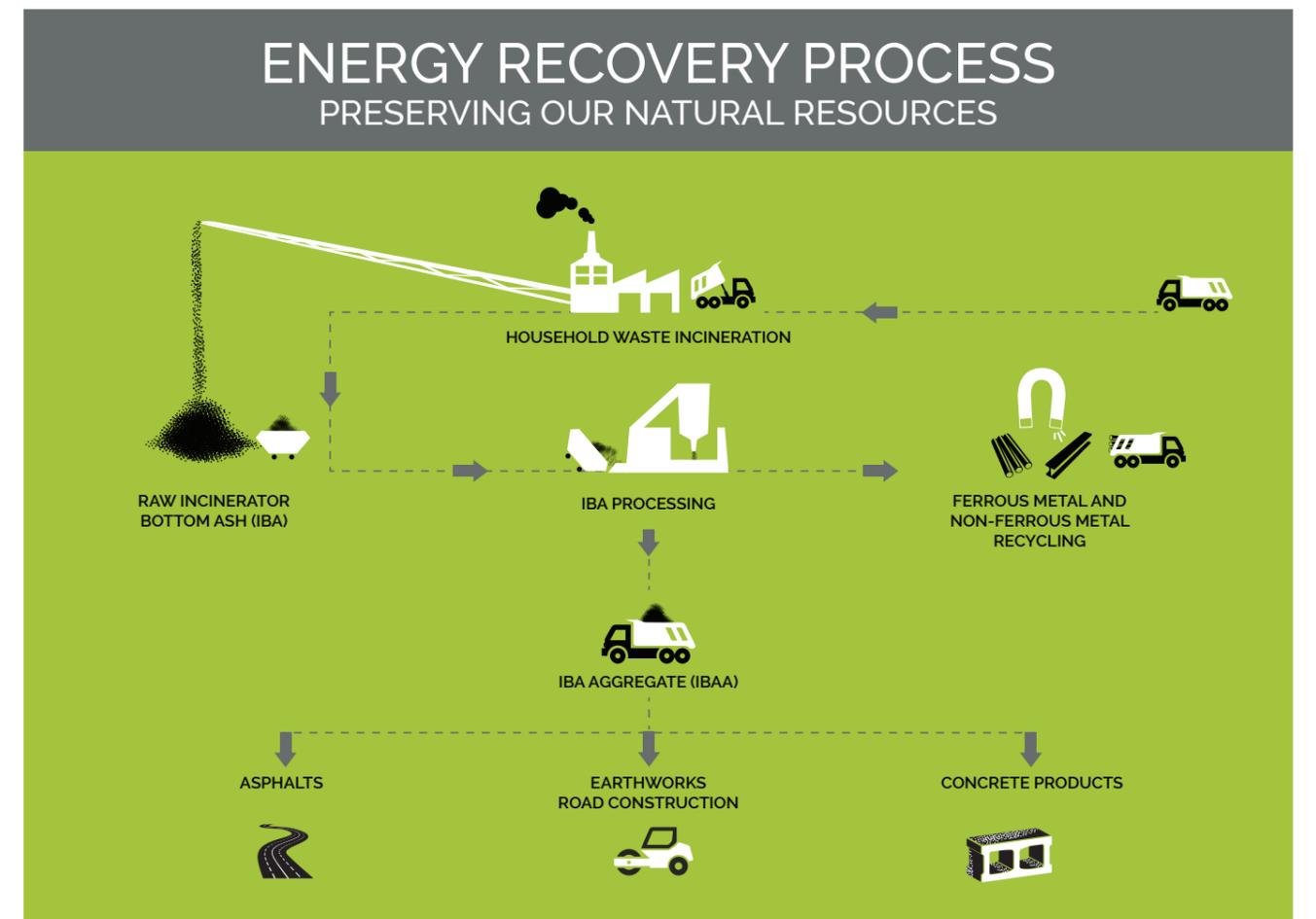
A 23 metre long rotating trommel is angled to process the material as it progresses through the drum. The -65mm material passes through the screens and continues to the aggregate processing plant whilst the larger material heads up to a picking station for alternative recycling. An operator recovers mixed oversize metals. The remaining materials discharged off the end of the conveyor are typically oversized brick and concrete, which is sent for crushing and recycling.

A secondary overband magnet recovers the small ferrous metal, which is also sold on for recycling and reuse in the UK.

A screen house then splits the material into three sizes: fine (0-5mm), medium (6-15mm) and large (16-65mm). These three grades of material are then passed over an eddy current separator to recover non-ferrous metals, which are exported for recycling.

Before arriving in the eddy current separation building, the ash passes over a magnetic head drum which recovers mainly AAA and AA batteries and small ferrous metals. These are also sent for recycling. The remaining material is clinker, which is then blended back into the IBA Aggregate.

The different grades of material are blended back together to form the fully processed Fortis IBA Aggregate. This is marketed and sold successfully across the construction industry.



Hampshire IBA Processing

Client: Veolia Environmental Services Ltd
IBA Volume: 125,000 tonnes per annum

Fortis has been processing the IBA generated from Hampshire's three energy recovery facilities since 2007.

Over this period, Hampshire's ash has been processed into a high quality IBA Aggregate for use in construction across the South of England.

In 2010, a further 10-year contract was secured with Veolia, which involved Fortis investing over £5m into facility and plant upgrades as it was re-located to our state-of-the-art A303 Enviropark, near Andover.

In addition to processing Hampshire IBA, in 2017, Fortis were awarded a contract to process the State of Jersey's IBA at this facility.

Fortis successfully works in partnership with Raymond Brown for the marketing and distribution of IBA Aggregate across the Hampshire market.

Contributing to Hampshire County's mineral plan and reducing the reliance on primary aggregates.





Diverting
95% of
Oxfordshire's
residual
waste
delivered to
the site away
from landfill.

Client: Viridor Waste Management Ltd
IBA Volume: 75,000 tonnes per annum

Fortis were selected by Viridor in 2014 to build and operate an IBA processing plant within their new Ardley Energy Recovery Facility in Oxfordshire.

Fortis has invested over £2m installing a state-of-the-art bespoke processing plant, and the 15-year partnership with Viridor sees around 75,000 tonnes of Fortis IBA Aggregate being produced each year in Oxfordshire.

Fortis have a joint venture with Smiths Bletchington and we work in partnership to successfully market IBA Aggregate in Oxford and the surrounding regions.

Oxfordshire IBA Processing

A303 IBA Processing Facility
Hampshire, England

Our team has processed and distributed over 1,000,000 tonnes of IBA Aggregate into the construction industry.

FORTIS

ECS 2



Sustainability

Our efficient management of waste materials is a vital service to both the environment and the community and we pride ourselves on conducting sustainable services to exemplary standards whilst protecting and enhancing the environment.

Fortis operates an Environmental Management System that meets the management system standard of ISO 14001, which is third party accredited by a UKAS registration body. This standard is the internationally accepted framework that outlines how to implement and operate an effective environmental management system within our organisation.

Being a sustainable business is fundamental to our success and we are strive to be responsible for our environmental, social and economic impacts. Our sustainability policy and plan includes objectives and targets including:

- Auditing and measurement of environmental and sustainability performance.
- The use of WRAP protocols.
- A commitment to increasing our recycling rates.
- A commitment to reducing energy use and CO₂ emissions.

Our approach to the management and the sustainability of our facilities is in accordance with our Environmental Permits and Policies. These are aimed at protecting the environment and people by complying with all relevant legislation and regulation, preventing pollution, continually improving our environmental performance and engaging with local stakeholders and the community.

Fortis IBA Aggregate is processed and supplied in accordance with Environment Agency Guidance, which sets the legal obligations to ensure that activity using IBA Aggregate does not pose risk to human health or the environment.

With regard to duty of care, we conduct a comprehensive site specific risk assessment and support clients individually; thereby ensuring traceability and confidence in use of the material. This means that we can trace every tonne of our IBA Aggregate at anytime. This process is of strategic importance within the business and we pride ourselves on conducting our business activities to exemplary level, whilst maintaining the highest practicable environmental standards.



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