MIBAAA
MANUFACTURERS OF IBA AGGREGATES ASSOCIATION

MIBAAA

An Overview

An introduction to the Manufacturers or Incinerator Bottom Ash Association, formed in 2016 to create an IBA recycling organisation with responsible, professional members and to promote good industry practice.

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E: www.mibaaa.org.uk

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Introduction from our founders

MIBAAA was formed in 2016 by founding members Blue Phoenix, Day Aggregates and Fortis IBA to create an IBA recycling organisation with responsible, professional members and to promote good industry practice.

IBA processors are critical link in the management of our country's waste, ensuring that society's reliance on landfill and primary aggregates continually reduces.

MIBAAA members now collectively manage and process circa 2.5m tonnes of IBA and sell around circa 2.1 million tonnes of IBA aggregate to the construction industry. IBA Aggregate offers significant CO2 benefits to our country's infrastructure projects and CO2 ambitions with a carbon footprint of around 6kg per tonne less than natural aggregate.

Adam Day
Day Aggregates

David York
Blue Phoenix

Lee Thompson
Fortis IBA Ltd

DAY AGGREGATES

Blue Phoenix Group

FORTIS
Preserving our Natural Resources

A background to IBA recycling and IBA Aggregate use

Professional IBA recycling commenced in the UK in 1998. Since then, processing to recover metals and improve IBA Aggregate quality has advanced significantly.

MIBAAA members responsibly process the thermal treatment residues from Energy From Waste plants, known as Incinerator Bottom Ash (IBA).

IBA processors are critical link in the management of our country's waste, ensuring that society's reliance on landfill and primary aggregates continually reduces.

Processing approximately 11.4m tonnes of municipal (Household) and commercial waste each year in England and Wales, the Energy from Waste plants (EfWs) use the collected waste a fuel generating electricity and in some cases local heating.

Of the 2.5m tonnes of IBA received and processed by MIBAAA members each year, approximately 300,000 tonnes of metal are successfully recovered easing the burden on the worlds low yielding primary metal mining. Additionally, around 2.1m tonnes of a sustainable aggregate for use in construction, is also recovered reducing the need for aggregate mineral extraction in England and Wales. IBA processing not only recovers metals and construction aggregates, it crucially diverts millions of tonnes of residual waste away from landfill every year.

About MIBAAA

MIBAAA members now collectively manage and process circa 2.5m tonnes of IBA and sell around circa 2.1 million tonnes of IBA aggregate to the construction industry. IBA Aggregate offers significant CO2 benefits to our country's infrastructure projects and CO2 ambitions with a carbon footprint of around 6kg per tonne less than natural aggregate. Broadly speaking, IBA Aggregate annual sales, reduce construction industry CO2 emissions by around 18,000 tonnes each year. However, as IBAA is only around 80% of the density of natural aggregates, the saving can be elevated to circa 22,500 tonnes.

MIBAAA members also recover circa 300,000 tonnes of ferrous and non-ferrous metals each year, contributing to a reduced demand for virgin metals extracted from low yielding ores across the globe. During storage and processing, about 100,000 tonnes per annum of moisture is lost from the IBAA. Freshly received IBA has a high moisture content following quenching. Some of this drains and is collected at the processing site and some moisture is lost due to evaporation.'

IBA processing and the subsequent metal recovery and provision of low carbon construction materials is both; well established and a critical pillar of waste and carbon reduction for the UK.

MIBAAA Code of Conduct

The UK IBA recycling industry started in 1998 at a single site in North London. At that time, there was no specific Environmental Regulations for IBAA use, but there were exemptions 17 and 19 to European Waste regulations, permitting the use of ash for use in construction. Also, there were no aggregate specifications for the construction industry to refer to for the use of IBAA. Each supply in the very early days had to be negotiated. However, discussion with EA officers and Highways Agency engineers soon began with the help of the then 'Energy from Waste Association' (which was later subsumed into Environmental Services Association (ESA). Since then the EA's Regulatory Position Statement for IBAA has been developed and beneficially used and CEN/UK standards have been written to accommodate the use of 'manufactured aggregate', which includes IBAA.

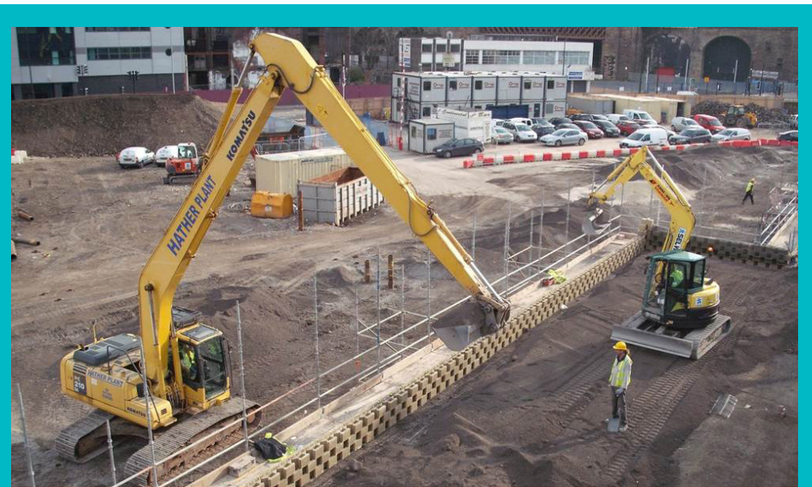
Since 1998, the number of EfWs has increased significantly, requiring appropriate and robust regulatory guidance. The guidance available today is underpinned by the Environment act 2021 and the Environment Agency Regulatory Position Statement 247 (RPS 247).

The MIBAAA Code of Practice (COP) details the very significant routine testing that members undertake to ensure regulatory compliance and product compliance for IBAA. The first testing and analysis that must be done is classification of IBA using `*Guidance on the classification and assessment of waste (1st Edition v1.2.GB) Technical Guidance WM3*` as it is produced at the EfWs. This testing is undertaken by the EfW operators in advance of MIBAAA member processing the IBA. Regular Sampling and Testing of IBA in compliance with the EA/ESA Protocol has demonstrated routine non-hazardous waste classification for the IBA produced at our country's EfWs.

Routine assessment for HP4: Irritant, HP7: Carcinogen, HP8: Corrosive and HP14: Ecotoxicity are successfully undertaken.

When a sales enquiry for supply of IBAA is received, a comprehensive assessment of any proposed site for supply is undertaken by specialist hydrogeological teams. The assessment is to ensure that the site meets the conditions set out in RPS247. The conditions include, impermeable covering of IBAA, in defined suitable locations, permitted tonnages, records management along with ground and surface water considerations. Detailed records are kept by MIBAAA members of all IBAA supplies, to include date, site location, customer, project name, application and tonnage supplied.

Nationwide at eighteen strategically located IBA processing facilities.



Over 2.5 million tonnes per annum of useful aggregate resources being safely and responsibly brought into use.

Recovering circa 300,000 tonnes of ferrous and non-ferrous metals each year.

Good to Know

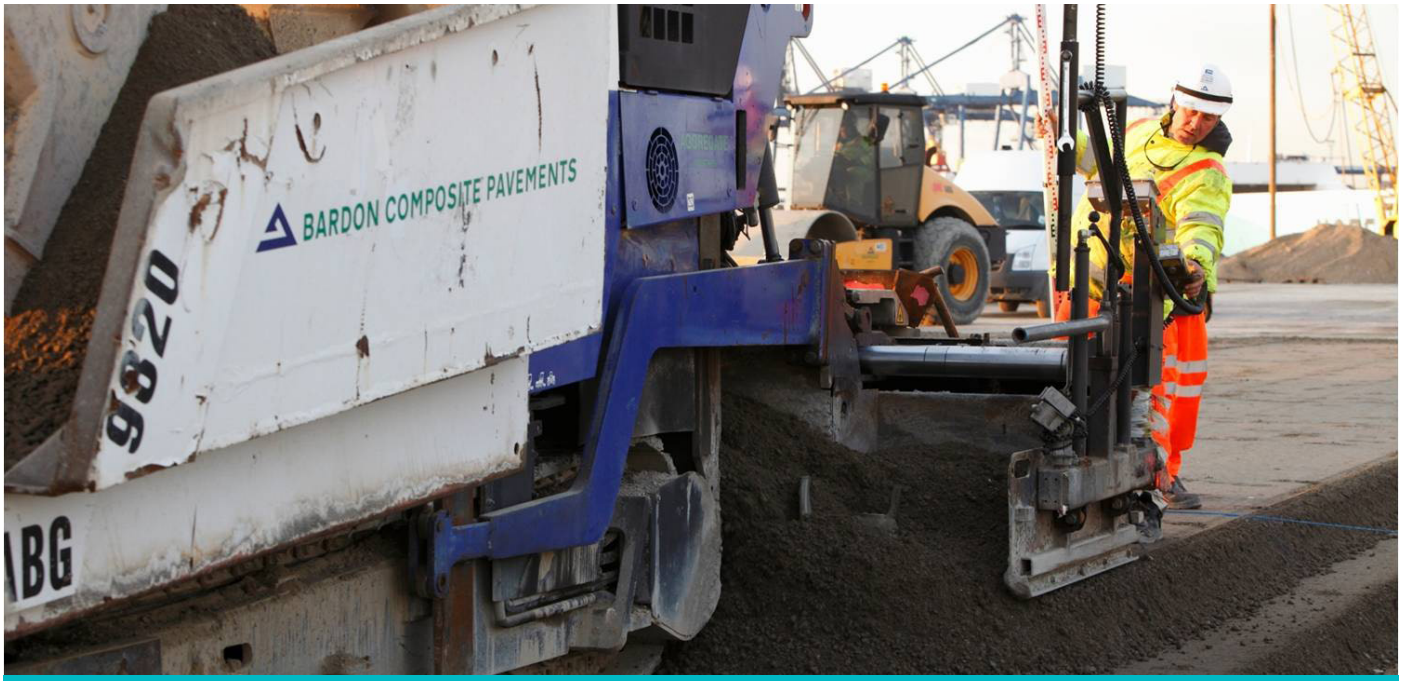
Dust management is a factor for all types of aggregate production and use. Whether it be IBA processing or IBAA use in construction sites, industry routine dust management plans and Safety Data Sheet are referenced to ensure that any risk relating to dust are managed appropriately and remain well below permitted exposure limits.

IBA processing is a mechanical process only, no thermal treatment or washing processes are undertaken in the recovery of metals and other constituents.

Countries such as The Netherlands with extensive highly vulnerable drinking water aquifers do undertake some washing of IBAA. This is due to their country's hydrogeology, where there is a very high water table in sand that drinking water supply is extracted from.

The UK has a much more varied hydrogeology, with many areas of clay subsoil, where there is negligible risk to groundwater from IBAA. RPS 247 takes groundwater into account in providing conditions for the appropriate supply of IBAA. Washing of IBAA would be inappropriate for the UK, it is very energy consuming, requires large amounts of water for use and subsequent appropriate disposal. It also produces a considerable percentage of hazardous sludge for specialist disposal. Additionally, IBAA washing would significantly increase the IBAA carbon footprint along with pass through costs to the UK construction industry.

Since IBAA use started in 1998, tens of millions of tonnes of IBAA have been successfully and safely supplied to construction projects of all sizes, across the country, including some motorway and Olympic facility construction. At the other end of the project size scale IBAA has been successfully used on many small housing and industrial developments.



Cement bound material with IBAA aggregate being laid on an industrial development.