CREATING POWER

ENERGY FROM WASTE SOLUTIONS
With the capacity to produce 10 million tonnes of limestone and lime products a year and over 30 years of reserves, Tarmac Lime and Powders is the UK’s leading producer of lime, powders and chemical stone.
Everyone knows that diamonds are the world’s most precious stones, but in many ways lime is even more valuable. Our products play a vital role in water purification, land remediation and electricity generation. They are also used in the production of essential materials ranging from construction products, iron, steel, plastics, and glass, to pharmaceuticals, animal feed and toothpaste. Life simply wouldn’t be the same without them. The reason Tarmac’s Lime and Powders are so sought after can be summed up in one word – quality. The products produced at our Tunstead quarry in Buxton are renowned across the globe for their purity and consistency. To ensure the highest standards are maintained all of our lime products are produced in compliance with ISO 9001 and rigorously tested by our own in-house team of chemists and technicians using the very latest analytical techniques. These include X-ray Fluorescence (XRF), Atomic Absorption Spectrometry (AAS), Automatic carbon/sulphur analysis, automatic thermo gravimetric analysis, ion selective electrode and classical wet chemistry methods. The results speak for themselves. Our Buxton quarry is the industry benchmark for quality and innovation, whilst our products are the materials of choice for leading organisations across the UK and throughout the world, from Northern Europe to Central America, South Africa to the Middle East.
EFFICIENCY
Tarmac’s Tunstead Works is the most carbon efficient in the UK. We supply over 90% of all the limestone used in UK coal fired flue gas desulphurisation, and in addition we provide a comprehensive range of high quality lime products to the growing Energy from Waste industry.

Energy from Waste (EfW) currently accounts for just 1.5% of the UK’s total electricity requirements. Increasing this to 6% would save some 34 million tonnes of CO2 emissions and play a crucial role in helping to achieve its landfill diversion targets.
Generating energy from household, municipal and clinical waste, minimises carbon emissions and helps to conserve valuable natural resources. Our lime solutions play a vital role in this process, ensuring the gases that are released into the atmosphere are free from pollutants that can harm people and damage the environment. Injecting flue gases with lime is a highly effective way of neutralising harmful, acidic substances including Sulphur Dioxide (SO2) and Hydrogen Chloride (HCl). Lime can be used as a slurry (milk of lime) or as hydrated lime in dry powder injection systems. The process is similar to flue gas desulphurisation in coal fired power stations. However the plant and machinery used is smaller and the gas contains a variety of pollutants, which can vary from plant to plant depending on the make up of the waste stream.

With over 20 years experience in providing flue gas treatment solutions, Tarmac offers unrivalled expertise in this highly specialised field.

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Tarmac is the UK’s leading provider of lime solutions for the EfW market. Our Tunstead quarry near Buxton, Derbyshire, is the largest limestone quarry in Britain and one of the most carbon efficient in Europe, with reserves in excess of 280 million tonnes. Each year we produce over 5 million tonnes of lime and limestone products.

We offer a range of solutions that have been optimised for EfW plants to provide maximum efficiency and ease of use. These include the Calbux range of high purity quicklime, Limbux hydrated lime and high purity chemical limestone.
Tarmac is a leading authority on fuel gas treatment, which is critical to ongoing efficiency and environmental performance.
Limbux Hydrated Lime

Different EfW flue gas treatment systems may operate at optimum efficiency with different grades of hydrated lime. The Limbux range of hydrated lime products is manufactured from selected quicklime types and hydrated, classified and processed to the required properties and grading profile.

Limbux HE

Reactive hydrated lime of small particle size developed for the current and next generation of EfW FGT systems.

Limbux Extra

The highest purity technical grade hydrated lime available.

Limbux

Our standard technical grade hydrated lime.

Calbux Quicklime

Some EfW flue gas treatment uses quicklime, reacted with water to form a slurry (milk of lime). Normally these systems require high reactivity quicklime. The Calbux range of quicklime products provides a comprehensive selection of reactivities and grading profiles to suit all requirements.

The grades most used in EfW flue gas treatment systems are:

Calbux 90M

Fine ground high reactive high calcium quicklime with low impurities.

Also available with added flow aid, Calbux 90 MT, for easier handling in storage and transfer systems.

High reactivity, low impurity, coarse ground high calcium quicklime.

Calbux Fine 6M

High reactivity, low impurity, minus 6mm high calcium quicklime.

OUR EXPERTISE
Our lime products are used for everything, from water purification and steel production, to the manufacture of animal feed.
Tarmac provides ongoing technical support and advice, from the earliest stages of a project through to startup and continuing operation. Our experience and expertise in the use of lime products in flue gas treatment can give economic and operational benefits to our customers.

Example of Tarmac expert advice at a large EfW plant. Lime consumption at the facility was higher than anticipated and following a period of monitoring and analysis of gas data, Tarmac advised on materials handling and plant operational parameters to improve efficiency by over 30%.