



SPECIALISTS IN CARBON CAPTURE AND UTILISATION,
WASTE TREATMENT AND SUSTAINABLE
CONSTRUCTION PRODUCTS

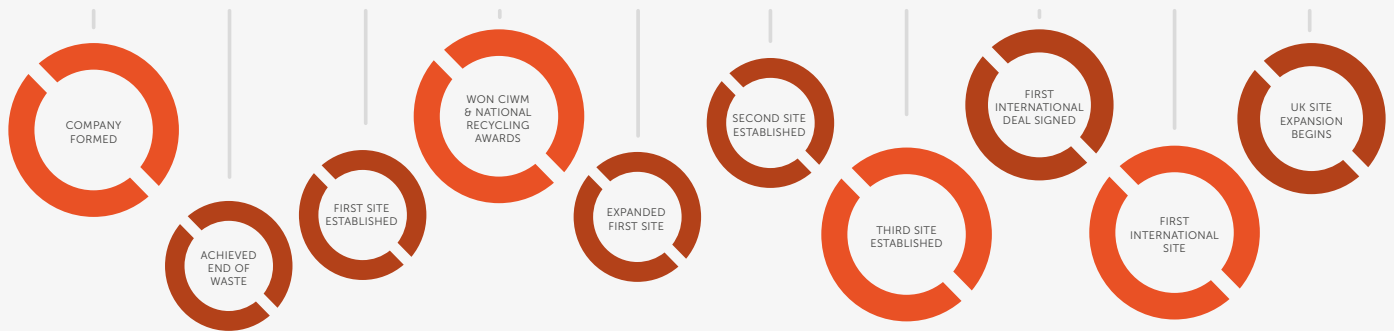
oco.co.uk



O.C.O Technology

At O.C.O Technology we specialise in Carbon Capture and Utilisation (CCU), waste treatment, and sustainable construction products. The successful commercial operation of O.C.O Technology is the result of many years of award-winning research.

2010 → 2011 → 2012 → 2013 → 2014 → 2016 → 2018 → 2019 → 2020 → 2021



Founded in 2010, we established our first production facility in 2012, and now operate three sites in the UK; Brandon (Suffolk), Avonmouth (Bristol) and Leeds. Together they process over 150,000 tonnes of waste each year which would have otherwise been sent to landfill and produce over 300,000 tonnes of sustainable aggregate.

O.C.O Technology is a genuine 'World's First' and has attracted interest from both the UK Government and the international community. We continue to develop new products and processes and signed our first international deal in 2019.

01 APPLICATION CARBON CAPTURE

Accelerated Carbonation Technology (ACT) is a genuine Carbon Capture and Utilisation (CCU) process. The process uses and captures carbon dioxide, which is permanently sequestered as stable carbonate minerals. ACT can be used to treat and stabilise waste materials, and in turn valorise them into sustainable construction products such as our carbon neutral* M-LS aggregate.

Very little energy is required for the process, which relies upon the reactivity of the waste material. Many wastes are naturally reactive with carbon dioxide in the presence of water. If the conditions are carefully controlled, this can be accelerated, taking place in minutes rather than years and resulting in the formation of calcium carbonate (manufactured limestone).

ACT has been demonstrated using a variety of gas sources.



REACTIVE WASTE



WATER



CARBON DIOXIDE



CALCIUM CARBONATE

*The carbon storage associated with the M-LS product is managed in [Puro Registry](#) for carbon removal credits and is only available by separate negotiation with O.C.O

A multitude of wastes can be readily treated and rendered less hazardous using ACT.

INDUSTRIES



- Municipal energy recovery
- Sewage energy recovery
- Biomass energy recovery
- Cement manufacture
- Steel / metal manufacture
- Quarrying / mining

WASTE TYPES



- Bottom ashes
- Boiler ashes
- Fly ashes
- FGTs / APCrs
- Drosses / Slags
- Mineral by-products



The ACT process chemically transforms and stabilises metal contaminants, through a variety of chemical and physical mechanisms, such as solidification, chemical conversion to less mobile forms, incorporation in solid solutions, and sorption onto crystal surfaces.

ACT can be used to alter the physical properties of the waste to improve handling. Treatment of waste using ACT can facilitate easier end of life management and reduce disposal costs. Waste treatment using ACT can be used as a step towards valorisation as sustainable construction products.



SOLIDIFICATION



CONVERSION



SOLID SOLUTION



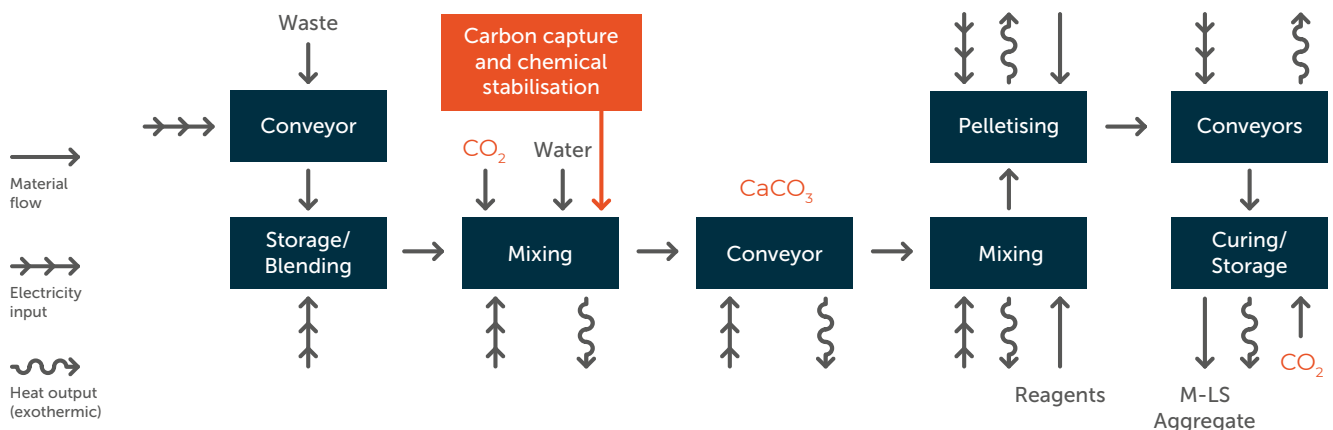
SORPTION

The business has developed a carbon capture and utilisation process to treat and stabilise thermal residues, and in turn valorise them into Manufactured LimeStone (M-LS) aggregate. The M-LS production process employs multiple stages to convert waste into aggregate.

O.C.O Technology is one of the few companies in the UK to hold End of Waste approval from the Environment Agency.

O.C.O Technology offers a range of M-LS products. Our BlockMix aggregate, which is certified to BS EN 13055-1 (Lightweight Aggregate for Concrete), is specifically suited for use in masonry. Our 6F Series aggregate, certified to BS EN 13242 (Unbound Aggregates) is ideal for use in earthworks, pavements and bound materials.

O.C.O Technology is developing new products and is applying ACT to many other applications.





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