

Carbon8 Systems Ltd

Carbon8 Systems Ltd is a spin-out company from the University of Greenwich. It provides a novel treatment of soil and waste using carbon dioxide to produce materials for reuse or less costly disposal.

The treatment uses an innovative, patented solution: **Accelerated Carbonation (ACT)**

1. Accelerated Carbonation (ACT)

ACT can be used in both on-site and off-site operations and can be integrated into existing industrial processes.

ACT results in an improvement in the chemical and physical properties of the treated materials.

ACT can use waste CO₂ emissions from local sources, capturing significant volumes of the gas.

When carbonation is used in the recovery and recycling of waste, an end product with value is created.

2. Advantages of ACT

- Rapid treatment – only a few minutes (as opposed to days or months with other technologies).
- Waste CO₂ is captured and converted into carbonate, providing carbon credits.
- The immobilisation of a wide variety of materials, including heavy metals, in carbonated products (at near neutral pH) renders them permanently non-hazardous or inert.
- The process results in increased product density, controlled particle size and improved geotechnical properties.
- The product can be used as a secondary aggregate or engineering fill.

3. Applications

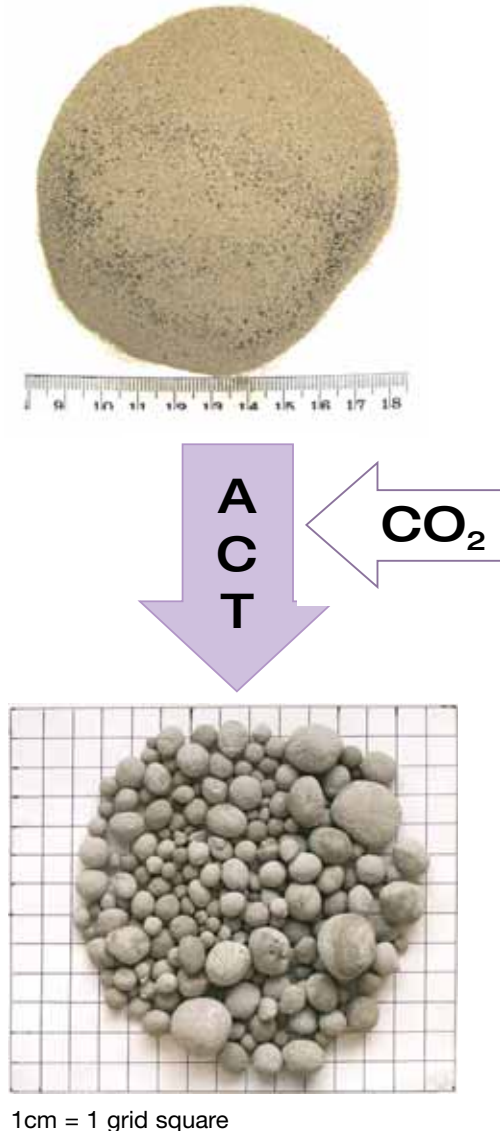
ACT treats contaminated soil and waste to provide a rapid cost-effective solution for:

- Brownfield land remediation and development.
- Industrial waste recycling and re-use.
- Pre-treatment of waste streams prior to disposal.

Some examples of wastes that have been successfully treated include:

- Slag (from steel manufacture).
- MSWI ashes (bottom and APC residues).
- Galligu (from soap manufacture).
- Soils contaminated with pyrotechnic manufacturing waste.
- Water treatment sludges.

4. The process



Carbon8 Systems Ltd are currently working with the Gallagher Group Ltd to process quarry wastes, and with Skipaway Holdings to process thermal residues.

GALLAGHER
GROUP LIMITED

carbon8

Please contact: **Paula Carey/Colin Hills**

Telephone: **020 8331 9843**

Mobile: **07917 690701**

E-mail: **p.j.carey@gre.ac.uk; c.d.hills@gre.ac.uk**

Web: **www.cclr.co.uk**

For more information on the University of Greenwich

Freephone: **0800 005 006**

Web: **www.greenwich.ac.uk**

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Registered office: Old Royal Naval College, Park Row, Greenwich, London SE10 9LS.