



## BOX COMPOSTING WITH GORE™ COVER – THE LONDON WASTE PLANT, UK

Just how efficiently and reliably large quantities can be processed compliant to EU Animal By Product Regulations (ABPR) in a small space is demonstrated when GORE™ Cover is used in a metal frame construction, such as installed at London Waste's EcoPark, UK. Since being commissioned in 2005, the composting plant has been working at full capacity, resulting in an annual throughput of 30,000 tonnes of separately collected kitchen waste and yard waste. It consists of eight BIODEGMA® modules for intensive composting (stage 1) and eight secondary composting units (stage 2), all designed by the company BIODEGMA GmbH.

The design is simple, yet precision engineered, and is made entirely of corrosion-free materials. There are no moving parts within the

modules, while the roofs and doors of the composting modules are equipped with GORE™ Cover. After delivery the source separated organic waste and yard waste are chopped up into smaller pieces and mixed together. Then the composting modules are loaded up to a maximum height of 2.5 metres using wheel loaders. Pressure ventilation through in-floor aeration ducts ensures the oxygen supply to the material that is to be degraded. Once filled, the roof and door to the composting modules are closed mechanically. From this moment on the process is environmentally sealed (in-vessel). The IVC system with double-ended modules adheres to the requirements of ABPR by using a dual barrier system of modules, fresh air ventilation for optimum temperatures and separated operating areas.



The exhaust air produced during the composting process is filtered through the permeable GORE™ Cover and released into the environment. The exhaust air does not need to be cleaned using, for instance, a biofilter in order to reduce odours. It has been demonstrated many times over that the system reduces odour by up to 97%, a figure easily comparable to the range of a well maintained biofilter. GORE™ Cover has been proven to reduce the concentration of microbes in the air passing through the membrane by > 99%.

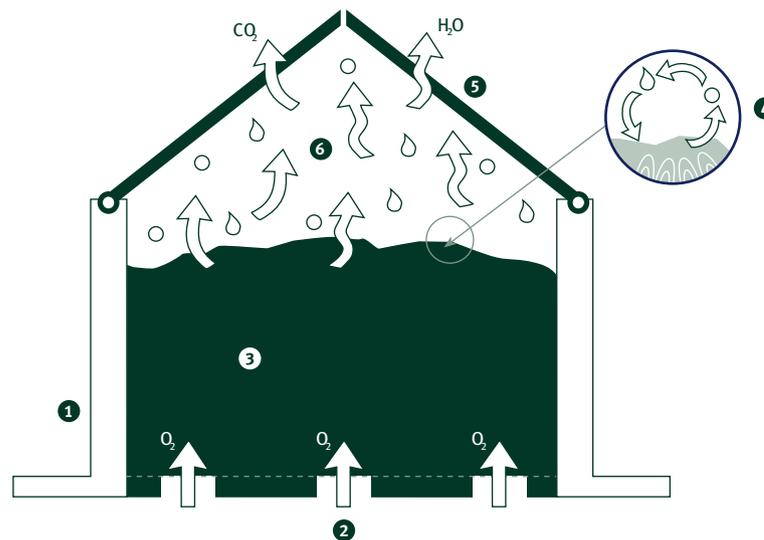
After six weeks of intensive composting under GORE™ Cover the fresh compost has been widely stabilised and no more pestering odours are observed. This means that the following two weeks of maturation in the aerated, open heaps is a simple matter.

When GORE™ Cover is used within a structural application, large quantities of waste can be processed efficiently, fully ABPR compliant, and with low levels of emissions yet in a small space. And all simply at the press of a button.

### SCHEMATIC DIAGRAM OF GORE™ COVER IN A BIODEGMA® MODULE

The composting material is aerated by means of aeration ducts in the ground, while CO<sub>2</sub> and water vapour are extracted via the GORE™ Cover in the roof and doors. Odours and microbes are retained.

- 1 Side wall
- 2 In-floor aeration ducts
- 3 Composting material
- 4 Moisture extraction and re-condensation
- 5 Mobile roof construction with GORE™ Cover
- 6 Moisture



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