



**fermacell**<sup>®</sup>

# **fermacell** Project & Solution

Energy from Waste Facility, Exeter, UK

- Eco Recycling Facility
- Project completed 2014
- **fermacell** Gypsum Fibreboards

# Energy from Waste Facility, Exeter, UK

## The Project

The Exeter Energy from Waste facility is based on conventional Mass Burn Incineration technology, and uses an oscillating kiln which ensures very thorough combustion of the waste. The plant will produce a total of around 3.6 Megawatts of Electricity per hour (MWh), and will export around 2.8 MWh of this after it has used some of the generated electricity to power its own operation. The Exeter Energy from Waste facility is set to recycle 60,000 tonnes of waste every year. The facility will enable Devon County Council to reduce household and commercial waste by incineration, produce energy in the process and substantially reduce the amount of waste sent to landfill.

## Project Requirement

The project called for 2 hour fire rated internal walls of up to 11.2 m in height, with very little structural reinforcement between the floor slab and the roof steel structure. Owing to site sequencing of

installation, the partitions needed to be installed around service ducts, trays and cables. With the industrial environment, the walls needed to be of the highest severe duty rating. Any product used was required to be strong enough to fix services, cables and trays back to the partition surface.

## Solution

Blockwork and standard partition options were ruled out because of the large vertical spans. PJS Solutions and fermacell worked with the site team from Chilworth Construction to develop a solution of light gauge steel C stud sections clad with fermacell Gypsum Fibreboards, without the need to include additional and costly

secondary hot rolled steelwork. fermacell Gypsum Fibreboard was used for the partition walls within the complex to provide the required levels of rigidity, sound insulation and fire protection. The system was expertly installed by PJS Solutions to give a virtually seamless 'industrial finish' without the need for plastering or painting of the boards. The 2 hour fire rating was achieved and is covered by fermacell's Warrington Fire Assessment (for up to 20 m high partitions) and acoustic rating of up to 62 dB R<sub>w</sub> achieved as demonstrated by laboratory acoustic testing of fermacell 1 S 31 partition system.



**fermacell**<sup>®</sup>

Overview	
Client	Devon County Council
Main Contractors	Chilworth Construction / Tiru
fermacell installer	PJS Solutions

Fermacell UK  
2 The Courtyard  
Reddicap Trading Estate  
Sutton Coldfield  
B75 7BU

fermacell<sup>®</sup> is a registered trademark and a company of the XELLA Group.

[www.fermacell.co.uk](http://www.fermacell.co.uk)