



Sustainability

Case study

Astral Court

Baglan Bay,
Glamorgan

Architect: Neath Port Talbot
Borough Council

Contractor: Interserve

Cladding contractor:
Pinnacle Structures

System manufacturer: Corus
Panels and Profiles

System type: Composite panels

Profile type: Micro-rib

Colorcoat® product:
Celestia® (walls)



Pegasus



BREEAM excellence

Baglan Bay Energy Park in Port Talbot, is the UK's largest single investment site, boasting over 650 acres of prime manufacturing land. One of the most prominent buildings on the site is Astral Court, a 4645 m² industrial unit comprising a production unit and ancillary office accommodation. It occupies a prime position on the main avenue running through the Energy Park which is within a designated European Union (EU) Objective One area. This classification means that the region will continue to benefit from EU

investment in skills, training and infrastructure.

The building has been constructed to the highest environmental standards in line with the local authority's stringent policy on sustainable construction. Careful consideration was given to the future expansion requirements of Astral Court and to current environmental design. This building's visual appearance is enhanced by the use of Colorcoat Celestia® in Pegasus, creating a high performance, colourful feature.

Astral Court

Baglan Bay, Glamorgan

“We designed the building with the most sustainable design possible,” explains David Griffiths, Architectural Services Manager for the council. “The building was designed to BREEAM Standards 5/93 and subsequently achieved an ‘excellent’ rating, which is testimony to the environmental responsibility of the structure.”

This standard seeks to minimise the adverse effect of the building on the environment, whilst promoting healthy indoor conditions for the occupants. According to the BRE’s Green Specification Guide, pre-finished steel based building systems used within ‘traditional shed’ specifications achieve an ‘A’ summary rating. This contributes to the achievement of the BREEAM ‘excellent’ rating. There are four credits available within the materials selection of a design stage BREEAM assessment for choosing a specified proportion of major building elements that achieve the ‘A’ rating.

The building also fulfilled the criteria to provide:

- Brownfield development.
- Renewable energy (photovoltaic).
- Energy efficient design (natural heating, ventilation and lighting).

The building incorporated a number of key features using carefully sourced and specified products with zero ozone depleting characteristics. Recycled

materials were used where possible, with the road and slab base containing approximately 3000 tonnes of crushed recycled brick and concrete. An energy control panel was installed to operate plant to optimum energy efficiency and the entire building was conveniently located to take advantage of the highly competitive energy from the new General Electric gas turbine CHP Plant presently under construction. Finally, even on-site cycle storage and changing facilities were provided to encourage local building occupiers to use environmentally-friendly transport.

The clad area of the external walls had to attain a U value of 0.38 W/m²K with the roof providing a U value of 0.25 W/m²K in line with Part L2 of the Building Regulations regarding Fuel and Power consumption. This was easily achieved using panels clad with *Colorcoat Celestia*. It is anticipated that the example of sustainable development illustrated by this scheme will encourage and promote energy efficient and sustainable design throughout the remainder of the park.

Awards:

- 11th *Colorcoat* Building Awards – Runner Up, Sustainable Development
- BREEAM Excellent rating (Version 5/93)
- Civic Trust Welsh Regeneration Award 2003

