

Knauf Insulation at Eden's Core

Knauf Insulation's high-performance, **Polyfoam**[®] Extruded Polystyrene (XPS) Insulation has been



chosen for use with three Osma Underfloor Heating systems at the Eden Project's new education centre, The Core. Knauf Insulation supplied nearly 700m² of **Polyfoam**[®] *Floorboard*, its compressive strength and thermal performance working in synergy with the most advanced underfloor heating technology available today to provide a heating system with minimal environmental impact.

Located in an old china clay pit at Bodelva, near St Austell, Cornwall's Eden Project opened in March 2001. The brain child of Tim Smit, the spectacular Biome complex was recently voted both 'Project of the Decade' and 'Britain's Favourite Modern Building' and, with over 7 million visitors in its first five years, it's certainly become one of Britain's most popular paid-for visitor attractions. To help visitors understand our relationship with plants, the Eden Project has now opened The Core, an awe-inspiring, £15m education centre that will be home to exhibitions, events and the popular schools' programmes. The new building's breathtaking design mirrors that of plant growth and features a 'central trunk and canopy roof that shades the ground and harvests the sun'.

Underfloor heating systems offer many benefits and are becoming the system-of-choice for commercial buildings. They are unobtrusive and out of sight, require little maintenance and, most importantly, heat rooms more effectively than radiators. This



means the water in the system can be cooler (45°C to 65°C compared with the 80°C required by radiators) which, in turn, allows the boiler to be run much more efficiently. And using less fuel means, apart from the inevitable cost saving, less of an environmental impact – vital for a global showcase such as the Eden Project.

To maximise these benefits, the Osma Underfloor Heating range is unique in that it takes a product-led approach to underfloor heating, with specific systems being developed for use with different types of floor construction. Three systems have been installed at The Core: on the ground floor, the Inner Core – which will soon be home to a 160-tonne, granite sculpture of a seed – uses *Osma System Plates*; the educational workshops and classrooms on the first floor use an *Osma Foiled Polystyrene Floating Floor* system and the offices and Jo's Café on the second floor use a similar system but specifically designed for battened floor construction. Each of the three systems relies on *Polyfoam*[®] *Extruded Polystyrene (XPS) Insulation* for support, either independently or as a component piece.

"Insulation plays a vital part in the success of our underfloor heating systems and we view it as an integral component," said Paul Knight, Osma's National Commercial Projects Manager and leader of their Commercial Division, created last year to focus on commercial applications. "We need a material that has excellent thermal insulation properties and a superior compressive strength to structurally support the floor, its applied finish and our own products. The Eden Project's systems feature a foil-lined channel machined into an insulation bed which means the material also has to be easy to work, machine precisely and retain crisp detail. As far as Osma Underfloor Heating are concerned, only high-performance extruded polystyrene – as used in **Polyfoam**[®] Floorboard – consistently meets these demands."



Polyfoam[®] *Floorboard* is ideal for insulating floors and is suitable for almost any type of floor construction with, or without, underfloor heating. Manufactured from high-performance extruded polystyrene (XPS), it has a high compressive strength, an impressively low thermal conductivity and is both resistant to and unaffected by moisture.

For further information, please visit Knauf Insulation's website at <u>www.knaufinsulation.co.uk</u> or call the enquiries hotline on 08700 668 660 quoting PU71206

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Editor's Notes

Knauf Insulation is a multinational manufacturer of insulation products with operations in the UK, Europe and the USA. Knauf Insulation Limited is insulation market leader in the UK and employs around 500 people at its four manufacturing plants at St. Helens, Queensferry, Cwmbran and Hartlepool.

The company manufactures a wide range of insulation products to meet the growing demand for energy efficiency and acoustic performance in both new and existing homes and commercial buildings. Products include glass mineral wool, rock mineral wool, expanded polystyrene and extruded polystyrene marketed under the trademarks *Crown[®]*, *Rocksilk[®]* and *Polyfoam[®]*.

Knauf Insulation is committed to the environment: its products use recycled and naturally abundant materials.

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