KNAUFINSULATION

27 April 2006

Knauf Insulation keeps jumbo warm

Knauf Insulation's *Rocksilk® Universal Slab* was specified by structural engineering consultants JBS (Northwest) Ltd, to help insulate Chester Zoo's new Asian elephant house. As part of the zoo's ongoing



campaign to protect this endangered species, the recently opened, state-of-the-art centre recreates a small piece of tropical rainforest. *Rocksilk® Universal Slab RS60* has been installed within the building's massive external doors to help keep its environment suitably hot and steamy.

With pressure on wild Asian elephants continuing to grow, Chester Zoo is committed to help ensure their long-term survival by way of a number of projects both in the wild and at the zoo. The Elephants of the Asian Forest project is one of the largest and most exciting in the zoo's 70-year history and is funded by the Asian Elephant Survival Appeal which has raised the £1.5m needed to build the new facility and support overseas projects.

The new elephant house gives the zoo state-of-the-art breeding facilities and its success means providing and maintaining a home-away-from-home environment – a piece of hot, humid, tropical rainforest. Inside the building, eight individual pens surround a mezzanine-level viewing platform. Movement between the pens and the elephants' outdoor enclosure and pool is through four, 'jumbo-sized', external doors and, to ensure an elephant-friendly environment, these need to be effectively insulated.



The four doors range from 2.6m x 3.2m to 3.6m x 4.6m in size and, weighing up to 3.5 tonnes each, are mounted on wheels and are hydraulically operated from a central control-desk. Door construction is a 180mm steel box-section, multi-bay frame with a 4mm steel infill panel centrally located in each bay. To provide an aesthetic finish, and protect both door and elephant, the doors are faced with 50mm thick keroin, a Malaysian hardwood similar to mahogany but much more resilient and hard-wearing. The insulation material is located in the bays in the framework between the infill panel and the facing.

Although insulation for elephant houses isn't covered by the Building Regulations (yet!), the architects specified that the insulation in the doors had to be at least equal to the requirements of Part L (2002) and meet an Elemental U-value of 0.20 W/m²K. Faced with this challenge, structural engineer Jim Banwell from JBS (Northwest) Ltd contacted Knauf Insulation's Technical Advisory Centre who recommended *Rocksilk® Universal Slab RS60* as the ideal solution.

Rocksilk® Universal Slab is a semi-rigid slab of rock mineral wool designed for multipurpose use in any type of construction. Rock mineral wool is an ideal insulation material being justifiably well known for its combination of thermal, acoustic and fire insulation properties. Slabs are available in eight different densities, in thickness ranging from 25mm to 100mm and in one, standard size of 1200mm x 600mm. Further versatility is offered by slabs being available with or without a foil or tissue facing, and in a water repellent grade.

For further information about Chester Zoo please visit www.chesterzoo.org. Details about Knauf Insulation's products can be found at www.knaufinsulation.co.uk or by calling the enquiries hotline on 08700 668 660 quoting RU71006.



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Editor's Notes

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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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