



Responsible consumer

Located north of Vienna, ATP Architects' G3 Shopping Resort Gerasdorf features one of the largest timber roofs in Europe. Supported on pairs of Y-shaped steel columns, the 20,000 square metre undulating roof structure is constructed from glulam beams, laminated engineered timber panels and plywood. The carbon dioxide held within the timber equates to a saving of around 23,000 tons. Over 3000 square metres of sedum roofing

reduces rainwater run-off, while also boosting biodiversity. Internally, thermal control is provided by a biomass-fuelled district heating plant and a well-based ground source heating and cooling system. A thermo-actively controlled air conditioning system is operated via the floor plenum, with the large volume of air above the comfort zone serving as a thermal buffer and facilitating night-time cooling via cross ventilation if required. The project also incorporates energy-efficient escalators, water-saving taps, LED luminaires, and recyclable construction materials (pfs: Kurt Kuball above, Florian Schaller below).



• Specified by Liverpool Mutual Homes for its low-rise housing and high-rise flats, Hanson StrucTherm's SEWI (structural external wall insulation) system has, along with other energy saving measures, cut tenants' bills by up to £800 a year and earned the organisation an HCA Low Carbon Award. The

BBA-approved SEWI panels comprise a galvanised steel structure with a rigid insulation core, a base-coat render, and a top-coat render (details: www.strucTherm.co.uk). Meanwhile Hanson has launched a new service enabling specifiers to access a team of technical building products experts by phone, email or

instant messaging. Advice is available on Building Regulations, codes of practice, SAP and EPC assessments, U-value calculations, and masonry solutions (details: www.askhanson.co.uk). • SEArch Architects has applied its Greening-The-Box suite of building techniques to a 200-year old house in High Wycombe, Buckinghamshire, resulting in a 100 per cent reduction in carbon dioxide emissions (17,878kg CO₂/year) and an 80 per cent reduction in running costs. The project involved wrapping the external envelope in Dow Building Solutions' Styrofoam-A extruded

polystyrene insulation, increasing the internal thermal mass of the walls and floors, increasing the south-facing glazed areas, decreasing the north-facing glazed areas, and modifying the internal layout to

encourage natural ventilation (details: www.styrofoam.co.uk). • Space Group and PH Partnership have completed a £50m BREEAM Excellent-rated student services building at Durham University.

The Palatine Centre (below, ph: Kristen McCluskie) incorporates a range of passive and active environmental technologies, including natural ventilation, good levels of daylighting, solar shading, low-

energy artificial lighting with daylight sensors and presence detection, air-source heat pumps with waste heat recycling, solar collectors, photovoltaics, sedum roofs, and rainwater harvesting. In addition, over 90 per cent of all waste generated during construction was recycled. • The 4th International Holcim Forum for Sustainable Construction is taking place in Mumbai, India, from 11-13 April. Chaired by Mohsen Mostafavi, the theme is sustainable construction and economics. Hosted by the Indian Institute of Technology, the event includes workshops and site visits (details: www.holcimforum.org).

