



GROUND-SOURCE SYSTEMS

INTERSEASONAL HEAT TRANSFER SOLUTION
SUFFOLK ONE, IPSWICH

REHAU PIPEWORK

DELIVERS INTERSEASONAL HEAT TRANSFER SOLUTION AT SUFFOLK ONE

REHAU has supplied the polyethylene pipework for the Interseasonal Heat Transfer installation at the new build Suffolk One, a new centre of learning for 16 to 19 year olds in Ipswich.

In one of its first collaborative projects with renewable energy specialists ICAX, REHAU has supplied the pipework for a solar collector system which will collect heat on the site during the summer for release to the building during winter.

Almost 14 kilometres of REHAU's 25mm PE-Xa cross linked polyethylene pipework has been installed throughout the bus turning area outside of the £65m, 20,200m² centre. The 25mm diameter pipework is fixed in loops onto metal grids buried just below the surface across an area of 1,560m².

Heat from the solar collector is stored in a ThermalBank constructed with REHAU's RAUGEO 32mm PE-Xa probes sited in 18 bore holes 100m deep until it is required for heating the core common areas of the building in winter. A key benefit of the system is that the stored heat from these ThermalBanks improves the performance of the ground source heat pumps installed by ICAX – optimising their COPs up to 6 by using recycled heat.

ICAX and REHAU worked alongside M&E consultants John Packer Associates (JPA) to develop this low energy and sustainable solution

for the new centre, which has been funded by the Learning and Skills Council.

JPA wanted to reduce energy consumption across the site whilst maintaining comfortable internal conditions for the vocational and teaching blocks built around a central atrium for the 2,200 students who will use the facilities.

REHAU entered a strategic alliance with ICAX last year as the key supplier of PE-Xa pipework and associated equipment on its Interseasonal Heat Transfer projects, having previously demonstrated the quality and durability of its polymer systems on a number of pilot projects. This is the largest scale installation to have taken place since then.

Architects on the project, which is scheduled to open in September, were Bond Bryan Architects with Turner & Townsend providing a range of services including the Project Management and Cost Management for the project. The project was a two stage Design and Build contract won by ISG Jackson at Stage D.



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