

explains: "The system complies with Building Regulations and British Standards, and has achieved BBA approval. Benefits include design flexibility, ease of use, speed of construction and cost effectiveness as well as thermal efficiency: with a standard U-value of 0.2 W/m²K. This is well below the Building Regulations Part L requirement and can easily go below this U-value. "The ICF Tech system consists of strong yet lightweight, interlocking forms made from fire retardant expanded polystyrene foam (EPS). Once the forms are constructed the structure is filled with a unique, thermally efficient concrete to create a high performance, monolithic wall. The

nature of its construction virtually eliminates air filtration, and can achieve test figures of 1.3 cubic metres per hour, per square metre. Then the thermal mass of the concrete wall stabilises the temperature of the interior, making homes warm in winter and cool in summer; therefore reducing fuel bills, and producing a smaller carbon footprint.

"It also produces exceptional sound insulation from airborne sources; far more effective than conventional forms of construction, resulting in a more comfortable, quieter living environment." The special concrete mix that Graham Howarth referred to has been developed for the company

by Aggregate Industries in conjunction with European chemicals giant, BASF.

Called Rheo Cell ICF, it is a self-compacting air entrained mix which uses a modest, 10 mm aggregate size and replaces much of the cement with more environmentally friendly alternatives. The special additives help hold air in the matrix to improve the insulation properties though more normal mix designs could be employed if lower levels of the code were being targeted.

ICF Tech and The Litchfield Group are currently in negotiation with a couple of national housebuilders regarding trialling the integrated system of walls and windows on a major project.



: Brooklyn House, comprising 11 luxury apartments in Bingham Avenue, Poole, Dorset. The walls have been constructed using Insulating Concrete Forms from ICF Tech, a supply and fit ICF system.