Thermal Bridging

Heat loss through thermal bridges (known as non–repeating or linear thermal bridges) occur at junctions between elements or where the continuity of the external fabric insulation is interrupted (e.g. at junctions with external walls, floors and roof).

As thermal standards continue to improve, the relative effect of thermal bridging becomes more significant as U-values are driven down.

To counter the effects of heat loss through thermal bridging junctions, the Concrete Block Association (CBA) have developed a comprehensive set of junctions that have been, independently assessed. The results of which demonstrate that constructions using Lignacite's range of aggregate blocks have reduced heat loss when compared to the Government's Accredited Construction Details and Default values shown in Appendix K of SAP 2012.

Lignacite Limited is a member of the CBA and as such is able to advocate the use of these enhanced bridging details.

This information will be of interest to designers and SAP assessors as well as builders who will have the responsibility for correctly constructing the various junctions.

Click on the following links to see the different junctions details available

Junction ψ-values and f-values (walls with fully filled cavities)

http://www.cba-blocks.org.uk/tech/junction-values-fully.html

Junction ψ-values and f-values (walls with partially filled cavities)

http://www.cba-blocks.org.uk/tech/junction-values-partially.html

Junction ψ-values and f-values (walls with cavities fully filled with Xtratherm CavityTherm)

http://www.cba-blocks.org.uk/tech/junction-values-fully-xtratherm.html

When viewing the junction details it will be noted that the thermal values have been assessed for three categories of concrete block density. For convenience our corresponding products are shown in the Table below.

Concrete Block Association - Thermal Bridging categories			
	Ultra lightweight aggregate blocks	Lightweight aggregate blocks	Dense aggregate blocks with
Recommended Products	Fibo 850	Ashlite Houseblock 1100	Carbon Buster Lignacite Lignacite GP Lignacrete