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Boise I-bloc™ for use as a Joist End Cap to meet Building Regulations Part L 2002 Air Leakage Requirements.

Introduction

Part L of The Building Regulations 2002 introduced new requirements for limiting air leakage from buildings. These requirements were accompanied by a set of Robust Details deemed to meet the requirements. In the case of intermediate floors at external masonry walls, the only detail shows joists supported in joist hangers. This effectively ended the option to build joists into external walls.

Builders have been forced to change the way floors are constructed, some opting to support joists in masonry hangers with have considerable health and safety issues and results in the need for expensive temporary propping systems. Others use a system that involves fixing plywood blocks to the ends of I-joists and applying a flexible sealant to the junction of I-joist and wall. Both options increase construction times and add considerable cost to the build.

This technical bulletin describes the benefits and installation of the Boise I-bloc™; which offers a simple, safe and cost effective means of meeting the air leakage requirements of Approved Document L and yet still maintains the benefit of building I-joists into external masonry walls.

The Product

I-bloc™ is factory manufactured from Versa-Lam® laminated veneer lumber for a snug fit into the end of BCI® Joists as shown in Figure 1. The joists can then be built into the masonry wall in the traditional manner. The use of Versa-Lam® eliminates twisting and shrinkage problems associated with solid timber and thus helps reduce air leakage.

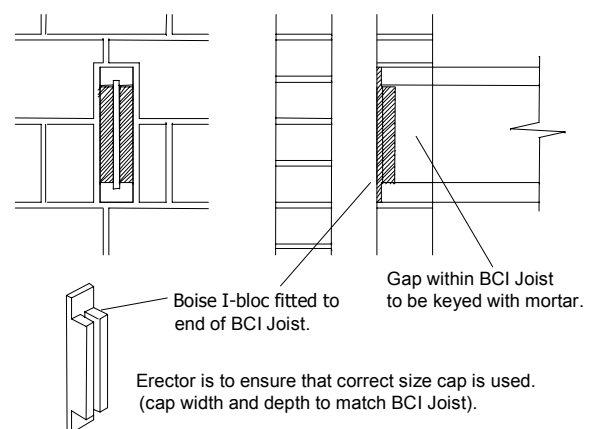


Figure 1. Boise I-bloc™

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Provided under exclusive arrangement by **TimberSolve**, 4 Lenten Street, Alton, Hampshire, GU34 1HG

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Advantages

- Fast and Safe** I-bloc™ allows joists to be built into the masonry wall and thus provides a safe working platform without the need for time consuming and expensive propping.
- Site Friendly** minor block-work inaccuracies are easily accommodated within the joist bearing length on the wall.
- Wall Restraint** BCI® Joists built into masonry walls with a minimum bearing length of 90mm automatically provide effective lateral restraint to the wall in accordance with Approved Document A to The Building Regulations, and NHBC Standards Section 6.1, and thus obviates the need for lateral restraint straps.
- Robust Detail** I-bloc™ fitted to BCI® Joists provides a robust detail that is accepted as meeting the air leakage requirements of Part L of The Building Regulations 2002.
- Easy to Install** I-bloc™ slots into place once the BCI® Joists have been placed on the masonry wall. Simply construct the block-work around the joists in the normal manner, and provide a mortar key between the block and the web of the BCI® Joist. There is no need to apply further sealants.
- Approval** I-bloc™ is accepted by NHBC as meeting the air leakage requirements of Part L of The Building Regulations 2002.
- Innovation** I-bloc™ is currently the subject of a UK patent application.

Installation

I-bloc™ can be installed quickly by following the four-point installation sequence below:

1. Locate BCI® Joists on the wall in the required positions.
2. Fix temporary bracing to the joists in accordance the Boise Installation Guide.
3. Tap I-bloc™ into place on the joist ends.



4. Build up masonry around joist ends ensuring a good mortar key is formed between the blocks and the BCI® Joist web.



Boise, BCI, Versa-Lam, and I-bloc are trademarks of the Boise Cascade Corporation.

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