

# Shutter Clip

## Hollowcore Perimeter Shuttering



Our patented hollowcore Shutter Clip instantly seals the joints between two precast hollowcore floor unit ends, without the need for any power tools, timber shuttering or screws. They also comply with Robust Details E-FC-4 and Building Regulations Part B, E, F and L.

### Applications

- ✓ Hollowcore Ends

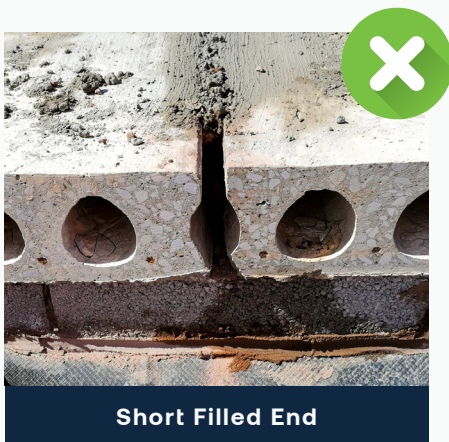
### Features and Benefits

- **Safe** – No temporary works, as shuttering the end of the units is eliminated; no hand tools or loose fixings are needed
- **Sustainable** – Manufactured from recycled Polypropylene plastic
- **Lightweight** – Transportable and strong
- **Fast** – Quick solution when you compare this to timber shuttering
- **Flexible** – Held in place by flexible plastic wings to ensure variable joint widths can be achieved.
- **Compliant** – Meets Robust Details E-FC-4 and Building Regulations Parts B, E, F and L. Plus, full load transfer can occur between hollowcore floor units.



### Safer Faster Solution

The joints between hollowcore units should be properly sealed with in-situ structural concrete – our shutter clips ensure this happens. These pre-formed shaped boards come with integrated flexible wings, providing a quick, easy and robust way to shutter joints.



# Design and Compliance – Further Explanation

On many sites, it's standard practice to 'site mix' infill material and short fill the end location between hollowcore floors. This poor practice results in non-compliance i.e.,

- The structural integrity of the floor would be compromised in relation to load spread between units, vertically and laterally
- Air loss would occur between the units and into the vented cavity
- Fire spread would occur between the units into the vented cavity and floor above
- The average density would not meet standards
- Sound would escape between the units

The Shutter Clip is a very simple product and solves all of these problems.

## Structural Design

The joint between hollowcore units, works as a shear key. In most cases the infill material is specified as a minimum 25N/mm<sup>2</sup> structural concrete, as it's designed to transfer lateral loads (diaphragm action) and spread vertical loads between units. Site mixed material doesn't fulfil this requirement; and cube tests would not be available.

## Robust Details – E-FC-4

When building in accordance with Robust Details, it states the minimum density of the precast floor should be 300kg/m<sup>2</sup> and the joint fully grouted between hollowcore units. This is stated on their site checklist, which should be completed by the Site Manager or Supervisor.

## Building Regulations

Approved Document B  
Fire Safety

**Section 8: Compartmentation/  
Sprinklers and Provision  
of Compartmentation.  
All Purpose Groups**

8.4 Effective compartmentation relies on both of the following:

- a. Fire resistance should be continuous at the join between elements forming a compartment.

Approved Document E  
Resistance to the Passage  
of Sound

**Section 2: Separating Floors  
and Associated Flanking  
Constructions for New Buildings**

3.30 Floor Type 1.2B Concrete Planks (solid or hollow) and 3.68 Floor Type 2.2B (solid or hollow)

All floor joints fully grouted to ensure air tightness.

Approved Document L  
Conservation of Fuel  
and Power

**Party Walls and Other  
Thermal Bypass**

3.4 Heat loss can be reduced by restricting air movement through the cavity, which can be achieved by fully filling the cavity and/or by effective sealing around the perimeter.

Further guidance is available at [www.buildingcontrolalliance.org](http://www.buildingcontrolalliance.org)

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