

Fire-Tested Thermal Breaks

Thermal bridging occurs where the insulation layer is penetrated by a material with a relatively high thermal conductivity.

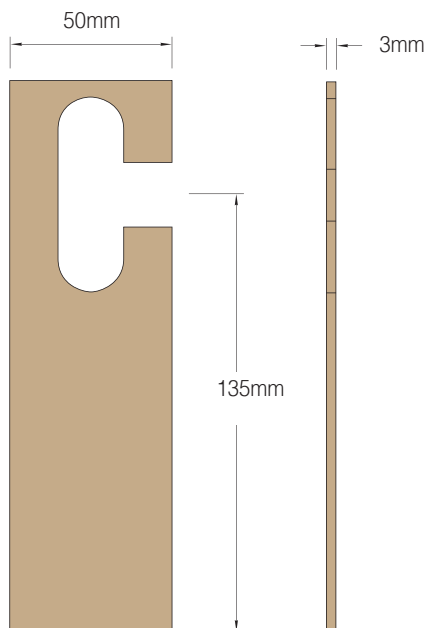
Although heat loss through a stainless steel support bracket may not be significant, it should be considered as part of the overall thermal performance of the building.

Brick support systems from Leviat can be supplied with Thermal Breaks to minimise heat loss through cold bridging, and improve the energy efficiency of your building project.

Ancon Thermal Breaks work by inserting a material with a lower thermal conductivity between the brackets and the frame. Shaped like a standard Ancon key-hole shim, these Thermal Breaks are designed to locate quickly and easily, and have a thermal conductivity of just 0.3W/mK*.

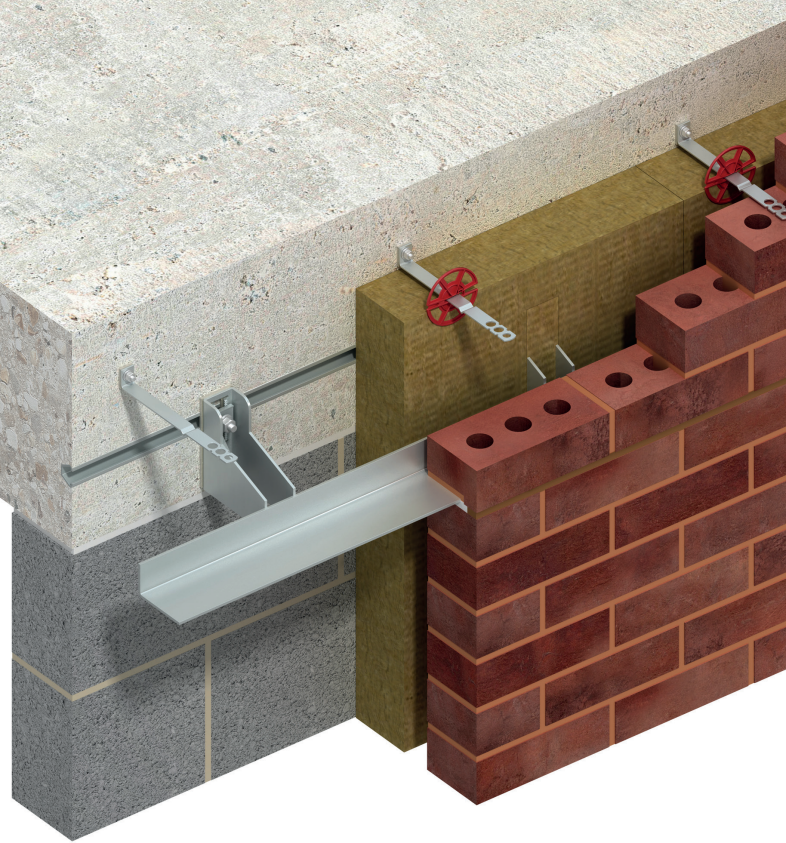
Reaction-to Fire Classification

Ancon Thermal Breaks have been independently tested in accordance with BS EN 13823 and verified as "A2-s1,d0 reaction-to fire classification" as defined in BS EN 13501-1. They are fully compliant with the Building (Amendment) Regulations 2018 - the Government's ban on combustible materials in external walls of high-rise residential buildings.



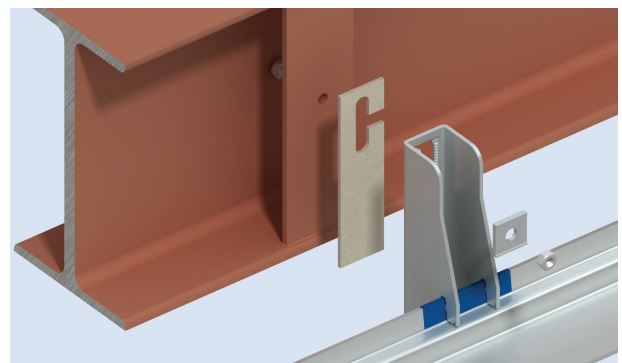
Ancon Thermal Break, ref. BK03

* For comparative purposes, stainless steel and carbon/galvanised steel have a thermal conductivity of 17W/mK and 50W/mK respectively.



Ancon Thermal Breaks

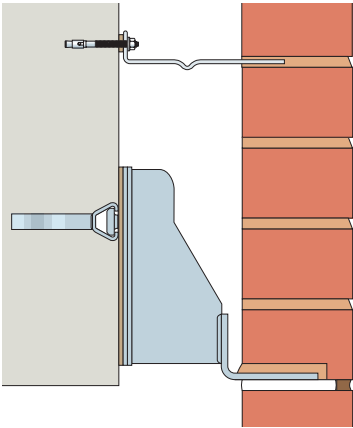
- ✓ Low thermal conductivity, 0.3W/mK
- ✓ Reaction-to fire classified A2-s1,d0
- ✓ High compressive strength
- ✓ Proven through thermal modelling to reduce heat loss
- ✓ Typically enable details to comply with BRE IP1/06 floor junction (0.07W/mK)
- ✓ Standard, available from stock
- ✓ Quick and easy to install



In the document SCI P380 'Avoidance of Thermal Bridging in Steel Construction', the Steel Construction Institute suggests "for bracket spacings less than 600mm, thermal spacers between the bracket and the edge beam may need to be considered".



Ancon Thermal Breaks



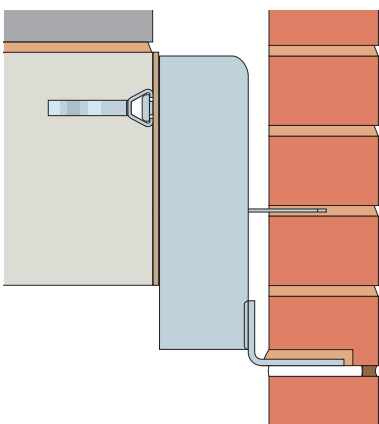
Ancon Thermal Breaks can be used singularly or as part of a shim pack. When used in conjunction with stainless steel shims, the Thermal Break should be located against the structure. Care should be taken not to exceed the maximum shimming allowance.

Specifying and Ordering

The standard Ancon Thermal Break, as illustrated overleaf, can be ordered using the product code 'BK03-135'. This product is suitable for standard AnconOptima support brackets and most Ancon MDC-type brackets.

Thermal Breaks can be specified with a support system using the suffix 'BK03':

MDC / Cavity / Masonry Load / Projection / Thermal Break
e.g. MDC / 75 / 8.2 / P75 / BK03



Non-standard Thermal Breaks can be designed to suit any Ancon support system. Contact the Technical Services Team for more information.

Maximum Shimming Allowance

The maximum thickness of shims should not exceed the outside diameter of the fixing or 16mm, whichever is less. The 3mm thickness of an Ancon Thermal Break should be taken into account when calculating the maximum shimming allowance for a system.

Installation Guidance

Ancon Thermal Breaks should extend to the bottom of the bracket, except where the bracket projects below the frame in which case the thermal break should stop at the frame.

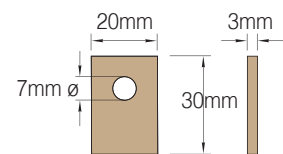
Gloves should be worn when handling and installing these products. All contact surfaces should be flat and free from debris.

Bi-Metallic Corrosion

Bi-metallic corrosion may occur where a stainless steel support system is bolted directly to a structural steel frame. This will not affect the stainless steel, but could slightly increase the corrosion rate of the carbon steel. Ancon Thermal Breaks can be used to isolate dissimilar metals and prevent bi-metallic corrosion.

Also available from Leviat

- Thermal breaks for use with stainless steel frame cramps
- Ultra-low thermal conductivity basalt fibre wall ties and frame cramps
- Non-standard thermal breaks for any application, machined to order



Frame Cramp Thermal Break
 Ref: SDB/BK

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