C4Ci Consultants Construction Innovation

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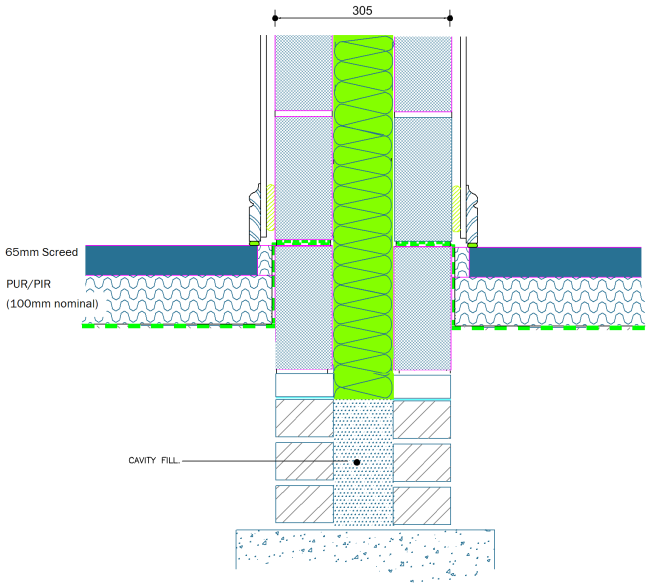
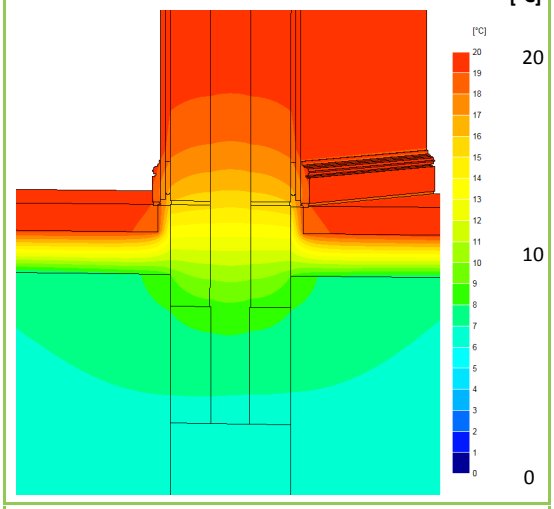
| **Construction Specification used for Thermal Model:** *(see detail below and notes for range of applicability)* | | |
|---|---|---|
| | Ground Floor: | Solid Floor, 100mm PUR/PIR, 25mm perimeter, λ = 0.022 |
| | Floor Build: | Nominal Floor U=0.15, insulation below screed |
| | Party Wall: | Twin Block leaf with 100mm cavity full fill insulation λ=0.040 |
| | Party Wall Leaf: | Cellular Aggregate Block, Besblock Starperformer |

| **Description:** | **Foot of Party Wall Junction (Solid Ground Floor/Party Wall)** | |
|---|---|---|
| **Reference:** | **P1** | **No ACD, implied, E-WM-11 fully filled** |

Junction Detail




**Solid Ground Floor / Party Wall Junction**




Temperature Distribution

| **Linear Thermal Transmittance W/m.K** | |
|---|---|
| **Ψ =** | **0.100** |

| **Temperature Factor[3] for Humidity and Mould** | |
|---|---|
| ***f* =** | **0.929** |

Calculation Prepared By: Matthew Wright *MA Physics (Oxon) PGCE*

***Notes:*** ***Precise ACD specification not published. Implied from other ACD specification.***
***Party Junctions are per dwelling, that is, they have already been halved.***

1. The Ψ and *f* quoted are calculated for the detail drawn and described above.
2. The Ψ and *f* quoted are considered valid for U-value(s) **Ground Floor = 0.15** W/m$^2$.K ***+/- 20%***, following the present guidance from B. Anderson, BRE.
3. In dwellings, a temperature factor *f* that is >0.75 would avoid the risk of mould growth.
4. Calculations have been performed in accordance with:
   - **EN ISO 10211_2007** *(British Standards)*
   - **IP 1/06** & **BR497** *(BRE Press)*

   and with reference to the following publications:
   - **EN ISO 6946** *(British Standards)*
   - **BR443** *(BRE Press)*