# Psi Value Ref: BE15175-E10-002A

build energy

| Prepared on behalf of: | WESTRUCTURE TIMBER FRAME Ltd<br>Commercial Unit 2 · Aller Barton · Honiton Road · Cullompton · EX15 1QQ<br>T: 01884 346 35 · W: www.westructure.co.uk · E: team@westructure.co.uk | **WESTRUCTURE TIMBER FRAME Ltd**<br>Commercial Unit 2, Aller Barton, Honiton Road,<br>Collumpton, Devon, EX15 1QQ<br>01884 346 35 |
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| **SAP Junction Ref:** | E10 Eaves Insulation at Ceiling Level | **Assessed by** | Liam Bartlett |
| **Junction Description:** | 140mm timber frame to 450mm insulation at ceiling level | **Issue Date** | 18/12/2022 |

Linear Thermal Transmittance

SAP $\Psi_{int}$ = 0.073 W/m.K

Critical Temperature Factor[3]

$f_{rsi}$ = 0.922

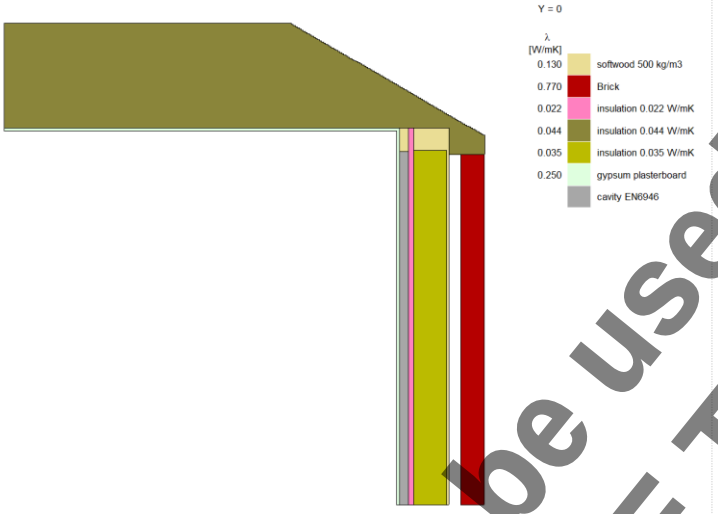



*Figure 1. Material geometry.*




*Figure 2. Isotherms (colour increment of 1°C, line increment of 5°C).*

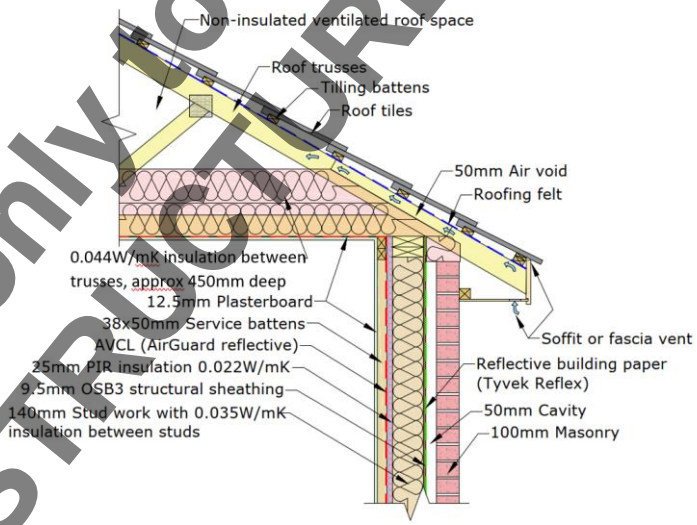



*Figure 3. Indicative Junction detail*

Detail only to be used in frames by WESTRUCTURE Timber Frame Ltd

Notes:

1. Stated values of Ψ and f are only valid for the detail described in this report
2. Calculations have been performed in accordance with EN ISO 10211_2011 (British Standard), IP 1/06 & BR497 (BRE) and EN ISO 6946 (British Standard)
3. Please refer to IP 1/06 (BRE) for guidance on avoiding surface condensation. In dwellings, a temperature factor f which is >0.75 is considered to be sufficient to avoid the risk of mould growth.
4. The U-values used for the calculation of Ψ values may vary from those used in the SAP calculation and construction U-value as it may ignore the effects of repeating thermal bridging, e.g. masonry wall ties, and U-value correction factors. These U-values should not be relied on for any purpose other than calculation of Ψ values.