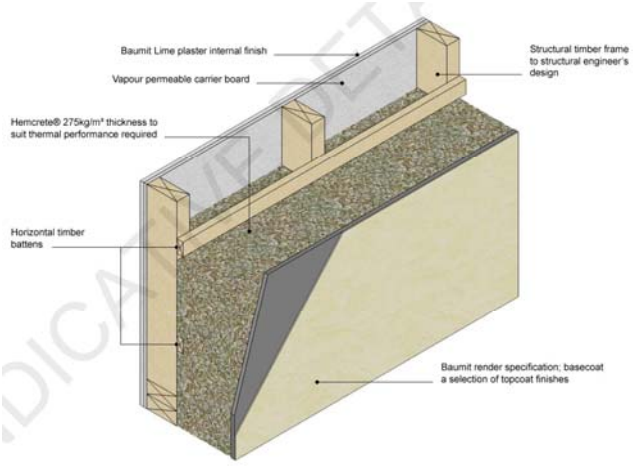
limetechnology
Sustainable building innovation

Available Through:
Benfield ATT Group ...passionate timber frame professionals
Self-Build · The Beamlock Building Co. · h&gc · timbertecs · fastframe

Guidance notes for timber frame design with Tradical® Hemcrete®.



This guide is to read in conjunction with the AKS Ward guide attached to determine the structural requirements.

Design in accordance with current British standards, Building Regulations, TRADA and UKTFA Guidance as deemed necessary.

A 'standard' timber frame for Tradical® Hemcrete® has the frame on the inside of the wall with a racking board of 9mm Multi-pro XS on the internal face.

The thickness of the Tradical® Hemcrete® does not relate to the width of the timber studs – wall thickness relates to the U-value of the wall. Studs can be 89 x 38mm for a 300mm thick Tradical® Hemcrete® wall, with studs centres being a function of wind and supported floor loading i.e. as either gets greater, then the stud centres close. This is a structural engineering function not related to the Tradical® Hemcrete®, hence the responsibility of the timber frame designer. Taller walls and more exposed locations will require deeper / wider studs and/or closer centres. Tradical® Hemcrete® is an insulation which restrains the timber frame – it is not load bearing.

The door / windows normally sit outside the line of the timber frame and are fixed back to the frame with brackets.

Door / window openings should be 5mm larger than the proposed frame size on the cill and sides or to the manufacturer's recommendations, whichever is the greater. The head should 25mm taller than the window frame on the top to allow for a permanent soffit shutter to the Tradical® Hemcrete®.

Horizontal noggins should be avoided and preferably omitted, or minimised in the frame. Tradical® Hemcrete® provides the similar function of stabilising an unbound length which buckles about minor axis and horizontal elements make full placing of material awkward.

Nails wholly within timber can be standard finish but any structural metal brackets or strapping exposed to the binder should be stainless steel or painted with red oxide or black bitumen to separate the lime binder from the galvanising (a potential bi-metallic reaction)

Engineered timber joists rather than solid joists should be used for the floors to minimise shrinkage potential at the floor zone.

Review of the panel drawings may reveal areas (such as thin columns between full height windows) where Tradical® Hemcrete® may not be the most practical solution. Wood fibreboards may be of assistance in these situations where the slender section of Tradical® Hemcrete® may be unstable or easily damaged– see photograph.

www limetechnology.co.uk
Unit 126, Milton Park, Abingdon
Oxfordshire, OX14 4SA
info@limetechnology.co.uk
Telephone: 0845 603 1143
Fax: 0845 634 1560