

Tradical[®] Hemcrete[®]

U-values

Tradical[®] Hemcrete[®] is an highly insulating material with a combination of good thermal conductivity, excellent thermal inertia and inherent air-tightness – a rare combination of properties in one material.

Tests carried out at the National Physics Laboratory and in France have established a direct link between thermal conductivity (k or λ) and Tradical[®] Hemcrete[®] density.

Tradical[®] Hemcrete[®] is specified as three product densities,

- Standard 275
- Hi Strength 330
- Hi Insulation 220.

The higher the density the stronger the Tradical[®] Hemcrete[®] mix, the higher the thermal mass (thermal capacity) and the lower the insulation value. The thermal inertia (diffusivity or resistance to temperature change) remains approximately the same for all mixes.

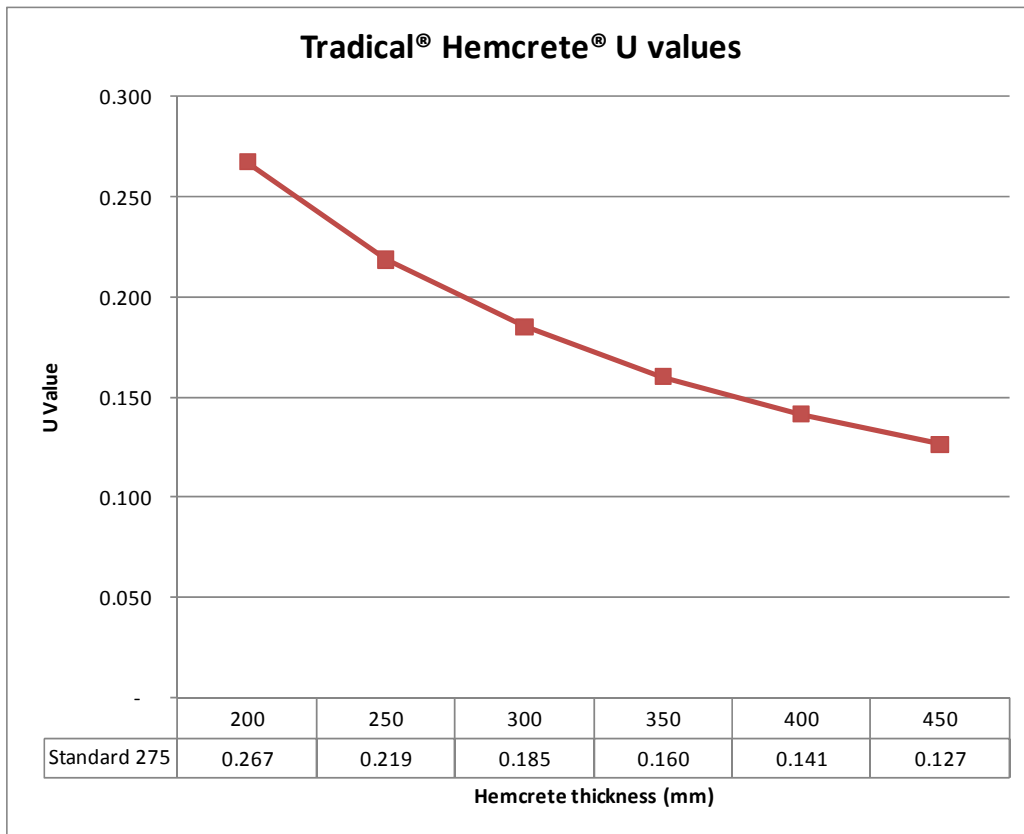
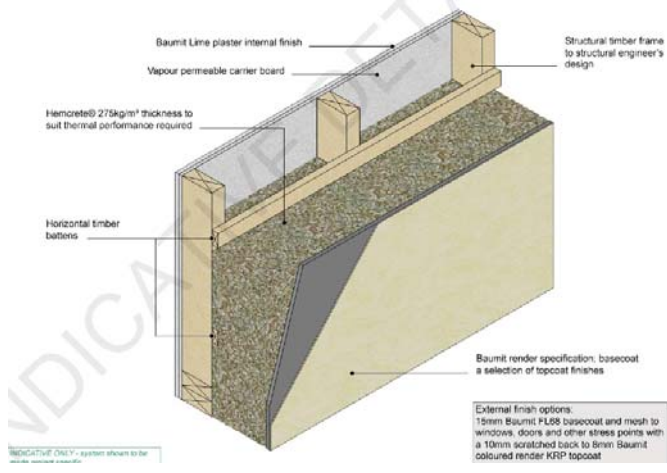
The binder mix ratios are usually specified as follows:

Mix	Bag to bale ratio	Thermal conductivity W/m.k	Application or Wall system
Tradical [®] Hemcrete [®] Standard 275	3:2	0.06	Single internal board, timber frame on inside – standard construction detail Central timber frame
Tradical [®] Hemcrete [®] Hi Strength 330	2:1	0.07	Restoration of old timber frame buildings and thick (+150mm) floor elements
Tradical [®] Hemcrete [®] Hi Insulation 220	1:1	0.05	Roof and loft insulation and loose fill into suspended floors or walls

Tradical[®] Hemcrete[®] Standard 275 is the most commonly used mix that provides an excellent combination of insulation, thermal mass and thermal inertia.

Tradical[®] Hemcrete[®] U value datasheet 2011, version 3, do not use after 31st December 2011 and refer to website for updated version

The graph below outlines the U values for different wall thicknesses for the standard wall build up as show opposite.



For more information on specifying Tradical® Hemcrete® for thermally efficient, high code level buildings please contact our technical advisors below.

If you wish to discuss a project using Tradical® Hemcrete® Hi strength 330 or Tradical® Hemcrete® Hi insulation 220 please contact us below.