

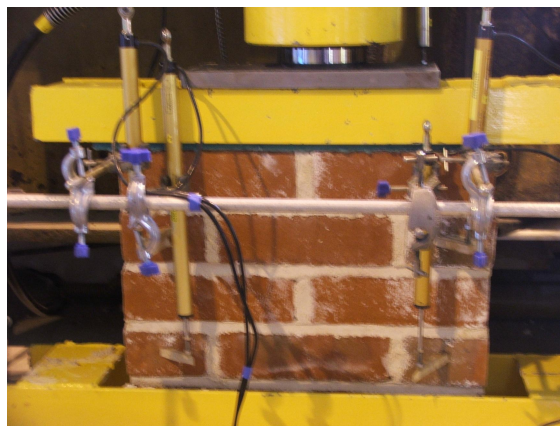
Lime-mortar masonry



Vertical Flexural Test



Horizontal Flexural Test



Compression test

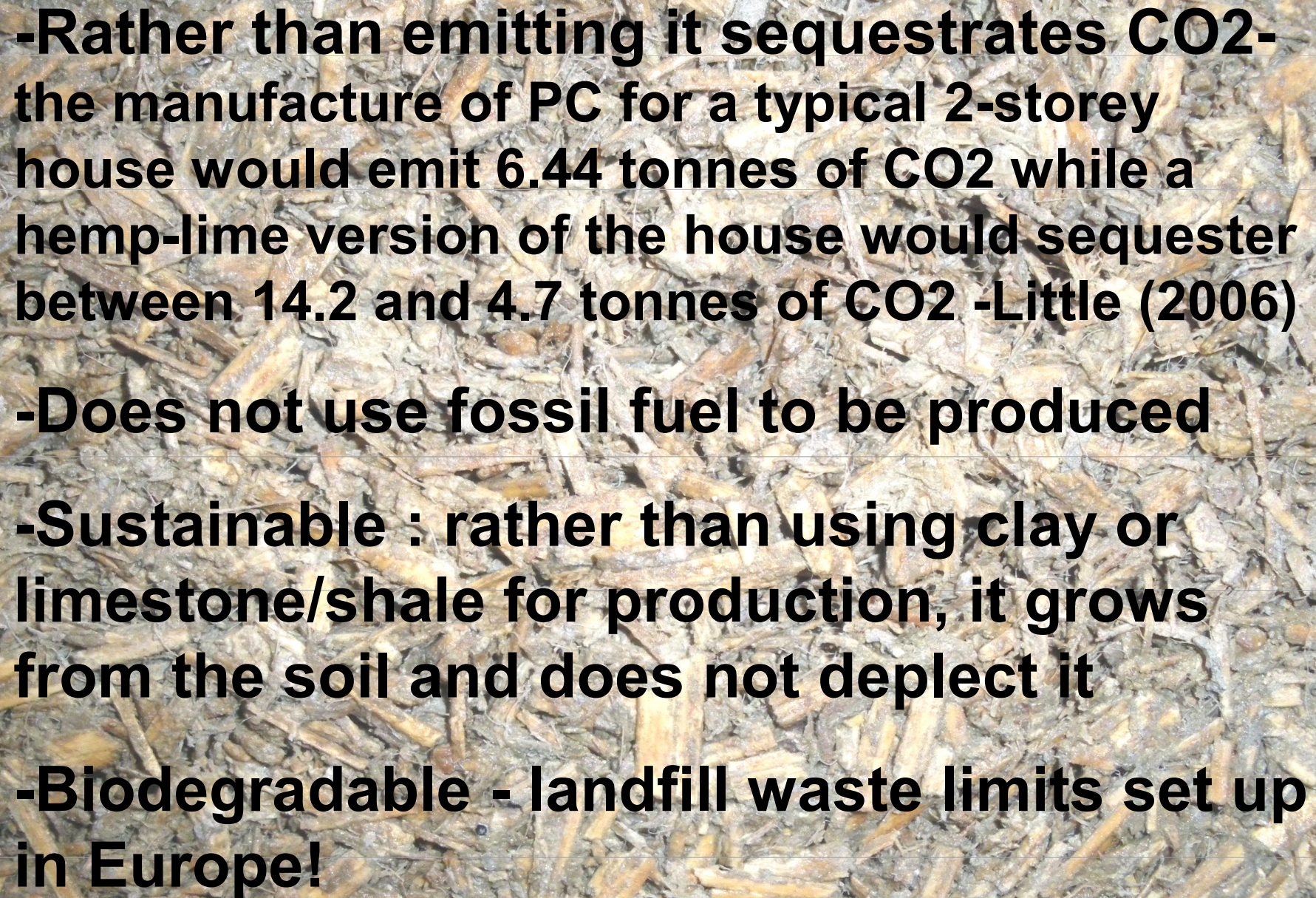


PC/GGBS

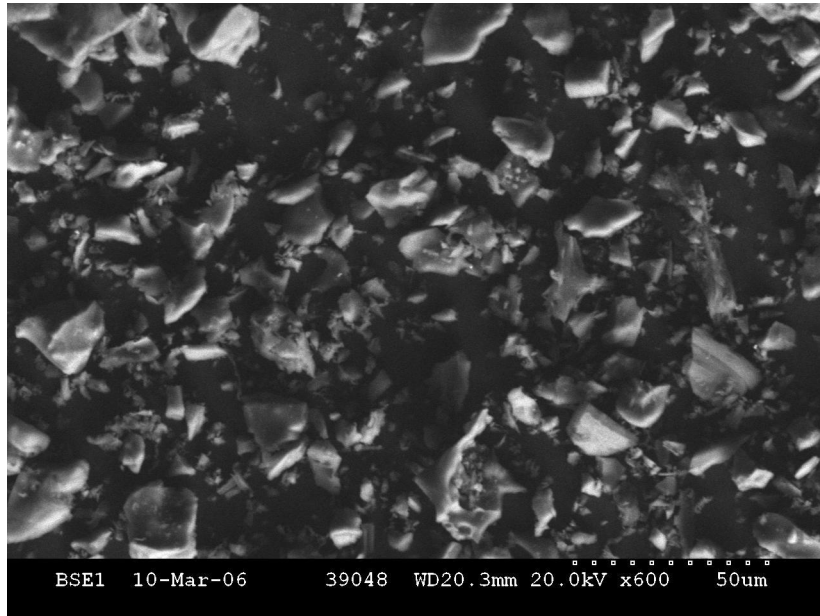


Bio-composites



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- Rather than emitting it sequesters CO2-
the manufacture of PC for a typical 2-storey
house would emit 6.44 tonnes of CO2 while a
hemp-lime version of the house would sequester
between 14.2 and 4.7 tonnes of CO2 -Little (2006)**
 - Does not use fossil fuel to be produced**
 - Sustainable : rather than using clay or
limestone/shale for production, it grows
from the soil and does not deplete it**
 - Biodegradable - landfill waste limits set up
in Europe!**

RHA



Rice husk ash

Super-pozzolan -
(Amorphous silica content
over 80%)

PC replacement- partial

Other industry and agricultural waste materials with pozzolanic activity

Laser g., titrations, XRF, XRD, SEM-EDX ...combined with

Physical testing – quality and behaviour of materials in construction-

Retrofitted insulators for masonry fabrics

A combination of layers incorporating:

- Insulators
- Brick slip finishes
- Renders with phase change materials

To decrease U-values of masonry improving insulation (energy consumption)