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CLAYTEC

Clay Plaster Development

Manfred Lemke, Claytec
COMPANY

founded 1983/92
40 employees
3 production sites
350 trade partners in EU
over 600 associated craftsmen and retailer

03/01/2018
Products & Systems

Clay Plasters
Clay Colors
Clay Boards
Clay Blocks

Thin layer systems
Insulations systems
Dry wall systems
Wood & Clay systems
APPLE STORE
Avenue de la Toison d’Or/
Gulden Vlieslaan
BRUSSELS
Why CLAY

CLAY improves indoor air quality (IAQ)
CLAY can be adapted to specific needs
CLAY has a favourable environmental footprint
CLAY is easy to use
Direct measurements of moisture buffering penetration depths in clay plasters
Dr Daniel Maskell¹, Dr Andrew Thomson², Prof Pete Walker¹ and Manfred Lemke³
Tailor Made Modifications:

• improved fire protection capacity
• better thermal performance
• constant moisture buffering effect
• no additional costs
## Actual Development

<table>
<thead>
<tr>
<th>Type</th>
<th>Binder</th>
<th>Bio-Aggregat</th>
<th>Mineral Aggregats</th>
<th>Additives</th>
</tr>
</thead>
<tbody>
<tr>
<td>H3</td>
<td>Earthen Clay</td>
<td>Hemp powder</td>
<td>Pumice, Sand</td>
<td>-</td>
</tr>
<tr>
<td>H5</td>
<td>Earthen Clay</td>
<td>Hemp powder</td>
<td>Pumice, Sand</td>
<td>Fire retardent</td>
</tr>
<tr>
<td>H6</td>
<td>Earthen Clay</td>
<td>Hemp powder</td>
<td>Pumice, Sand</td>
<td></td>
</tr>
<tr>
<td><strong>ALL</strong></td>
<td><strong>Ready-to-use mixtures; compatible with standard plaster machines</strong></td>
<td></td>
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</tr>
</tbody>
</table>
Ecological Footprint - benchmark

Energy MJ/kg cradle to gate

- CLAY Plaster: 0.3
- Gypsum Plaster: 2.17

CO2 equiv. kg/kg cradle to gate

- CLAY Plaster: 0.013
- Gypsum Plaster: 0.14
Expected Results

Fire protection layer for bio-based substrates:
- *rigid hemp insulation*
- *compressed straw boards*
- *wood fibre boards*

Constant moisture buffering values >65gr/m² (class III DIN 18947)

Easy use and constant costs
Thanks for your Attention!

Any Questions?

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