Report: Air blowing test using SIGA sheets

1 Introduction

The tests with the vapour control layer SIGA Majpell 5[1] were carried out on 17th March in Bütschwil.

2 Method

The element was blown out in a horizontal position with the sheet facing up. The bottom plank was a wood-based panel, the sides were glued upright wooden panels. The compartment was thus sealed.

Compartment size: 2500 x 600 x 200 mm.

The vapour control layer was installed diagonally, so that a covered joint of 0.6 mm was included in the test. Additional clamping battens were attached to the sides to prevent the sheet from "slipping". Thus, the situation in one of the centre rafter could be observed in the individual compartment.

2.1 Findings:

The sheet stretched upwards while blowing. An additional space was formed, which was also filled. After blowing, the swelling receded only minimally.

[1] Vapour control layer for permanently airtight building envelopes for roof, wall and ceiling structures, Source: http://www.siga.ch/uploads/tx_gosigaproductdb/KM6035_MAJP_ProdDatBl_dt.pdf, 29.03.2011

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3 Description of the possible application:

The vapour control layer SIGA Majpell 5 is suitable as planking material for isofloc air insulation.

The following requirements should be noted

- ✓ In case of sealed compartments, adequate air outlets have to be provided while blowing using the hose process
  (e.g. notch above the cross joint near the injection hole)
- ✓ The mechanical fastening of the clamping batten directly on the structural wood should be designed such that the sheet is prevented from "slipping" even under the blowing pressure.
- ✓ The clamping batten should have a minimum thickness of 30 mm for a normal compartment width of 560 mm.
  (Larger compartments require additional grid battens, where one should remember that manufacturers of plasterboard specify their own grid distances)

4 Agreement:

SIGA will use and publish these findings only in relation to isofloc cellulose insulation.

Bütschwil, 29th March 2011

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