

LABORATORY MEASUREMENT

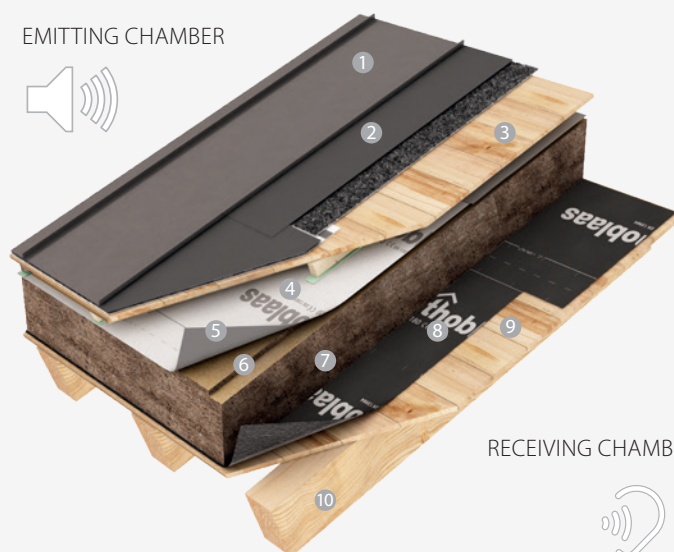


Airborne acoustic insulation and noise generated by heavy rain

The test sample is identified by a 5.60x3.65m wooden roof positioned between an emitting room (photo 1) and a receiving room, able to emit and record the sound stress applied during the tests.

Shown here are the layers tested in the two versions: the first with the TRASPIR 3D COAT and the second with the sheet metal directly on the plank.

EMITTING CHAMBER



RECEIVING CHAMBER



- ① 0.6 mm thick galvanised steel sheet metal
- ② 8 mm thick TRASPIR 3D COAT membrane
- ③ 20 mm thick pine beads
- ④ 60 mm thick pine battens
- ⑤ rothoblaas breathable membrane
- ⑥ 22 mm thick 200 kg/m³ wood fibre
- ⑦ 180 mm thick 110 kg/m³ wood fibre

- ⑧ rothoblaas vapour stop
- ⑨ 20 mm thick pine beads
- ⑩ 200 mm thick laminated pine beam

TESTS PERFORMED

The following measuring tests have been performed on both layers, with and without TRASPIR 3D COAT:

1. Airborne acoustic insulation according to EN ISO 10140-2:2010 and EN ISO 717-1:2013 on roof. The result is a soundproofing power index of R_w for the layer. Accordingly, the higher the value the better the acoustic insulation.

2. Noise generated by heavy rain according to EN ISO 140-18:2007: in this test you obtain a value indicating the sound pressure level L_{IA} recorded in the receiving room during the pounding of water, simulated by a tank placed over the sample.

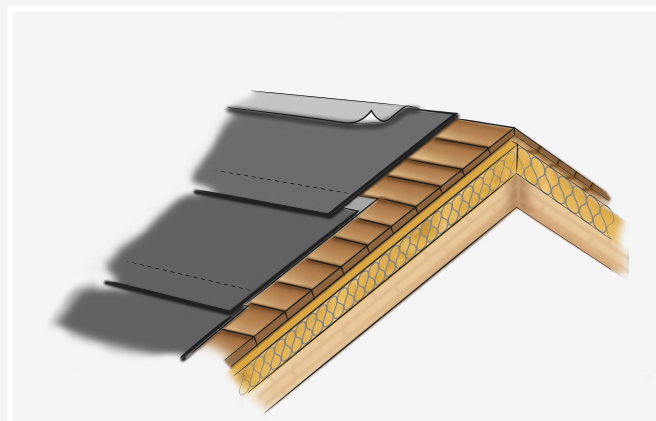
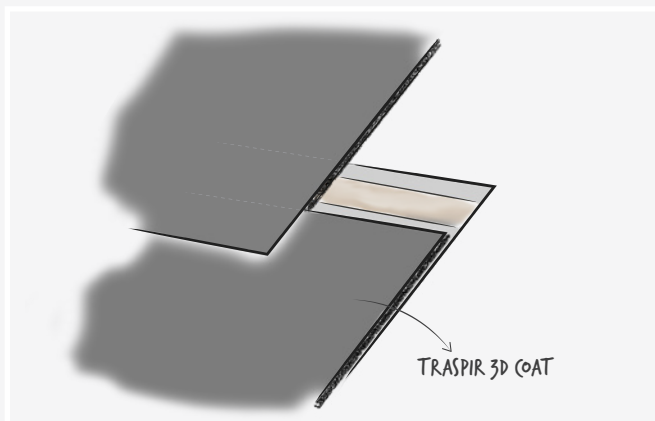


photo 1: Photo of sample, emitting chamber side

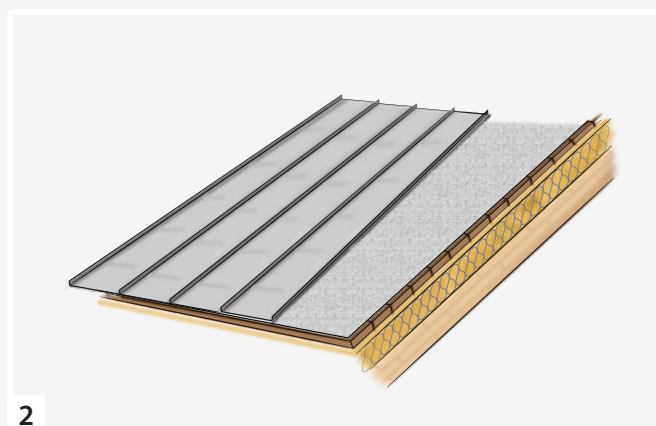
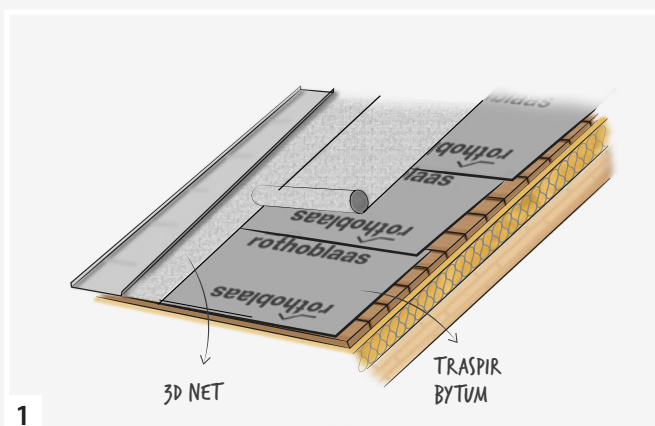
RESULTS	WITHOUT MEMBRANE	WITH MEMBRANE
①  NOISE AIRBORNE	  $R_w = 43 \text{ dB}$	  $R_w = 44 \text{ dB}$
②  RAIN POURING	  $L_{IA} = 36,9 \text{ dB}$	  $L_{IA} = 32,7 \text{ dB}$

NOTE: The full test report is available from the rothoblaas technical department

TRASPIR 3D COAT



3D NET



CHIMNEY DETAIL WITH 3D NET AND TRASPIR 3D COAT

