Centre for Advanced Composite Materials Mechanical Testing Laboratory Department of Mechanical Engineering

Mr. J.B.M.Geurts Technical Manager

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Your Ref: Hydrapanel Our Ref: 2908A

KAINDL PO Box 25-659 St. Heliers AUCKLAND Attn Barry Smith



Te Whare Wānanga o Tāmaki Makaurau

Centre for Advanced Composite Materials Tamaki Campus 261 Morrin Rd, Glen Innes Auckland, New Zealand Telephone 64 9 – 923-7251 Facsimile 64 9 - 367 7181 Email: j.geurts@auckland.ac.nz

The University of Auckland Private Bag 92019 Auckland, New Zealand

Report on Hydrapanel Water Permeability Test on the basis of AS/NZS 2908.2

- Samples: Three specimens, 600 x 500 mm, one from each of three sheets, were submitted by KAINDL for water permeability testing on the basis of AS/NZS 2908.2. The specimens were placed in a Contherm Model Cat 180 environmental chamber for a period of seven days with a controlled atmosphere of $23 \pm 5^{\circ}$ C and $50 \pm 10\%$ relative humidity in such a manner that all faces were adequately ventilated.
- Test Method: A plastic frame was placed and sealed on top of the facesheet of the specimen and filled with water to a height of 20mm. The specimens were then returned to the Contherm Model Cat 180 environmental chamber, refer picture 1, for a period of 36 hours with a controlled atmosphere of $23 \pm 5^{\circ}$ C and $50 \pm 10\%$ relative humidity.



Picture 1: Test specimens in Contherm Environmental Chamber

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Results: After 36 hours in the testing environment, no traces of moisture and no formation of droplets could be seen on the reverse side of the specimen – refer picture 2.

Picture 2: The specimen underside after 36 hours in the Contherm Environmental Chamber.

These tests were carried out in the Mechanical Testing Laboratory, Centre for Advanced Composite Materials, Department of Mechanical Engineering, The University of Auckland.

J.Geurts

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Technical Manager

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