



# HITEX CAVITY DRYING PROJECT

**TEST: 4 LITRE WATER INTO WALLCAVITY.**

**DATE: 20<sup>th</sup> Dec 02**

## **1. BACKGROUND**

As part of the project with Auckland University, a test of introducing 4 litres of water into the building wall was done. It is noted that there is a similar test done in Canada although the exact details of this test have not been able to be found. In the 3 walls of the HITEX test rig, the 4 litres of water was introduced between the cladding and the building paper (where this was present) at a location approximately 2.2 metres above the floor. The water was introduced through one hole drilled in the cladding and the water was fed by gravity through a tube from a measured container on top of the rig roof. Water run out was collected in a tray underneath the bottom of the wall of the cladding.

## **2. WALL WITH HITEX DIAMOND AND BUILDING PAPER**

Four litres of water was fed in over a 25 minute period, with most of the water going in in the final 10 minutes. Water started running out into the collection tray almost immediately, and stopped as soon as the water stopped entering. Water could be seen dripping over a length of 400 mm at the bottom of the cladding.

Results:

- Water entered: 4 litres
- Water collected in tray: 3.7 litres
- Water retained in wall therefore: 0.3 litres.

## **3. WALL WITH HITEX DIAMOND AND NO BUILDING PAPER**

As soon as the water was fed in, water came out across the bottom plate and effectively into the house. The test was discontinued due to flooding of instruments etc so no further results are available.

## **4. WALL WITH FIBRE CEMENT CLADDING**

Four litres of water was fed in over a 15 minute period. There was a 3 minute delay before water started running out into the collection tray. Water could be seen dripping over a length of 300 mm at the bottom of the cladding. Results:

- Water entered: 4 litres
- Water collected in tray: 3.2 litres
- Water retained in wall therefore: 0.8 litres.

## **5. NOTE**

This was the first attempt at this test and practical difficulties had to be overcome during the course of the work. The above notes were recorded by Ken Holyoake.