

Spirare ZRT³ Nozzlenub Moisture Management System

Greyabbey Housing Northern Ireland

The houses at Greyabbey were identified as having a long standing issue with dampness, thus this was seen as a good case study project. The houses at Greyabbey were two bed roomed end terraces, built around 1900, with solid brick walls. The houses had been empty for a number of years but were recently extensively renovated

- October 2008 the Spirare Moisture Control System was installed in houses in Belfast, Northern Ireland. These houses were of solid 400 mm thick brick walls and were saturated with moisture.
- The houses were re-surveyed after installation of the ZRT³ Nozzlenub and on four separate occasions these houses have shown that the ZRT3 NozzleNub have stopped the moisture from rising into the walls and the walls are now drying out.
- As can be seen in the thermal image (Fig 1) on the right the ZRT3 Nozzlenub has dried out the wall as depicted by the green blue colour

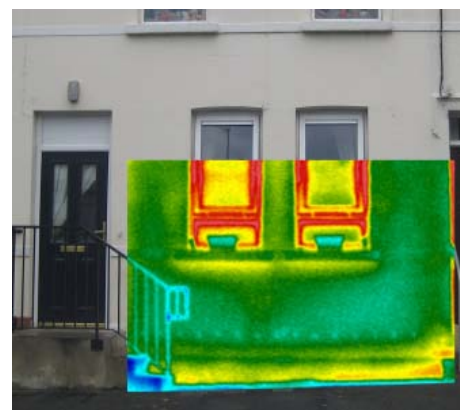


Fig 1

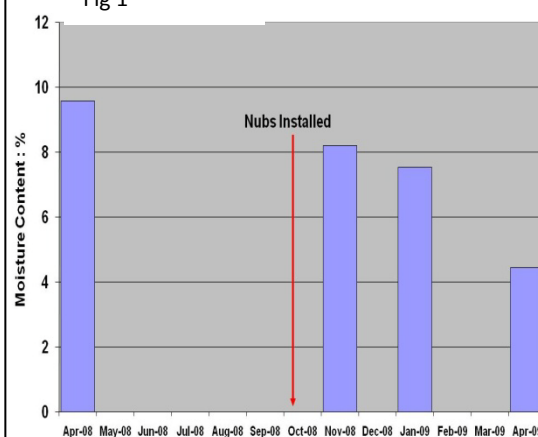


Fig 2

Measured moisture contents

On each visit, samples of the external brick were taken by drilling a series of holes vertically upwards from the level of the anti dampness nubs in each house. The technique used followed that recommended in BRE Digest 245 'Rising damp in walls: Diagnosis and treatment'.

A low speed electrical drill with a 10mm masonry bit was used to drill holes into the external rendering, which was discarded, and then into the underlying brick. The drilling was extended 90 – 100 mm into the brickwork. The powder resulting from the brick drilling was collected separately and each sample placed in a sealed plastic bag.

On return to the University, each sample was transferred to a glass dish, weighed to the nearest 0.001 gm and then dried in a ventilated oven at 110°C for 24 hours. The initial and final weights, w_w and w_d , were used to calculate the percentage moisture content by weight of each sample using:

$$mc = \frac{100 \times (W_w - W_d)}{W_d} \%$$

As you can see in fig 2 the ZRT3 Nozzlenub moisture management system has dramatically reduced the moisture content in the walls and are uniformly drier

(Case Study refers to No 92 Greyabbey, both No 92 & 101 houses on the case study showed similar results)

