



FLOORE UNDERFLOOR HEATING SYSTEM
TECHNICAL REPORT

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Introduction

Jan Akander from Floore Värmegolv underfloor heating systems, Vildhussens Väg 11, 84013 Torpshammar, Sweden provided Mapei (UK) Ltd with several sections of their underfloor heating insulation system. The Floorewa panels consist of high density expanded polystyrene (EPS) with an aluminium top section. Grooves to accommodate heating pipes are present within the panel.

Floore already work with Mapei in Sweden and wish to continue this relationship with their ventures into the UK. In Sweden the system is primed and treated with a levelling compound prior to fixing the tiled finish.

Objectives

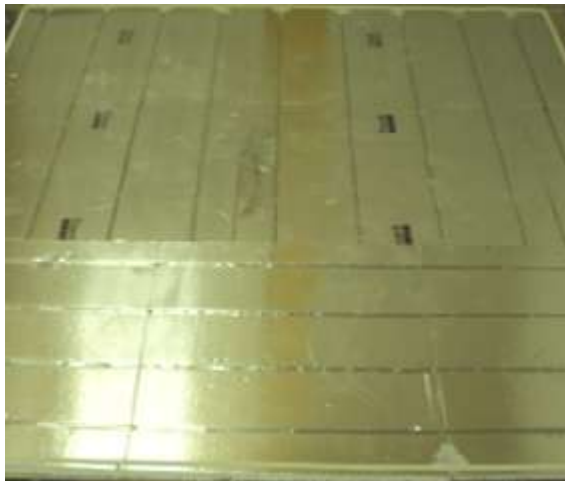
To determine an acceptable method of bonding tiles to the surface of the Floore panels.

Method of test

Several of the panels were bonded to the floor, covering an area of approx 1.8 x 1.8 metres. The surface of the panels was wiped clean then primed with Mapei Eco Prim Grip. Once the primer had dried the area was levelled with a 3 – 4 mm application of Mapei Ultraplan Renovation Screed. .

The sample area was assessed at regular intervals over the next 2 months for signs of cracking within the levelling compound. The area was subjected to regular light foot traffic.

Note: No heating pipes were provided.



Floore panels in position



Application of Eco Prim Grip



Application of Ultraplan Renovation Screed



Levelled floor area

Results

No cracking within the levelling compound was noted.

The adhesion strength of the primer/levelling compound surface application to the Floor panels was assessed subjectively using a hammer and cold chisel.

The bond was extremely strong and could not be destroyed. When the test panels were discarded they were very difficult to separate, with the levelling compound remaining firmly bonded to them.

Conclusions

Based on the test results a suitable means of preparing the Floor panels would be to prime with Mapei Eco Prim Grip and to apply a 3 – 4 mm layer of Mapei Ultraplan Renovation Screed.

However as this test involved no application of heat through the system we would suggest that a live test is carried out on a suitable construction site.