

## **Poured Insulation & Liquid screed overcome the limitations of PIR boards for a luxury home in Hale**

Clockwork Screed was appointed by Cheshire based luxury house builder, Bayley & Swift, to install poured insulation and liquid screed flooring across three levels of a new, multi-million pound super home in Hale.

### **About the project**

Smooth, level flooring was required for the ground and two upper floors of the high-end, luxury home, which would be installed with underfloor heating.

When the Managing Director of Clockwork Screed heard about the build, he got in touch with Bayley & Swift to offer Clockwork Screed's liquid screed services. The timing of our approach was fortuitous for the client because plans were being put in place to install PIR boards (polyisocyanurate insulation) to level the existing floors. This would have been far more costly, time consuming and labour intensive than applying our products.

We were invited onto site to take a look at the existing floor on each of the three levels.

### **The challenge**

Upon surveying the site, it became apparent that the existing upper floors had been constructed using pre-cast hollow core concrete slabs. The slabs varied dramatically both in depth and camber. The upper two floors had variations of up to 25mm across their 300m<sup>2</sup> area. The site agent was in the process of ordering PIR boards to fill the voids and create a level floor for the underfloor heating.

To tackle the slab variations in a much more practical and cost-effective way, we pumped poured insulation into the isolated areas that needed to be raised to the highest level of the existing pre-cast slabs. Poured insulation is self-levelling without manual intervention and doesn't require the transportation, or generate the waste, associated with the installation of PIR boards. Our poured insulation has a low density and dries as quickly as 1cm per day.

### **Underfloor heating installation**

Over 2km of underfloor heating pipework was installed across the three floors. Underfloor heating is increasingly installed in larger homes due to the luxurious comfort, even distribution of heat and energy savings it provides.

Once the underfloor heating was installed, we returned to finish the floors by applying cementitious liquid screed, ready for the final floor covering. Clockwork Screed's cementitious liquid floor screed can be laid as thinly as 25mm which speeds up the installation and reduces the volume of screed that is required, yet it is a high performance product that offers exceptional strength. Liquid screed also dries within 24 to 48 hours.

Liquid screed is ideal for underfloor heating because it self-compacts, so doesn't create air pockets around the pipework. The thin layer of screed also enhances the performance of the underfloor heating system and allows it to distribute the heat evenly throughout each room.

### **Project outcomes**

Clockwork Screed's poured insulation and liquid screed were the most effective products for this project, both in terms of cost and speed of installation.

Choosing poured insulation over PIR boards overcame the challenges of the variations and voids of the existing floors, and saved the client transportation and labour costs. The quick installation and drying of the poured insulation also accelerated the progress of the project.

Applying a liquid screed designed to be used with underfloor heating at the recommended depths provided quality flooring that met the expectations of such a high-end build, while maximising the performance and responsiveness of the underfloor heating system.

By installing our own poured insulation and liquid screed, we were able to carry out the work seamlessly, and with just one point of contact for the client throughout our involvement with the project.

### **Client satisfaction**

Bayley & Swift were extremely happy with the installation, our collaborative approach and the way in which we advised the site agent. We delivered high quality remedial work and installed poured insulation and liquid screed flooring within the promised, swift timescales. We hope to work with Bayley & Swift again soon.

### **Benefits of Clockwork Screed services**

- Clockwork Screed provided a full liquid floor screed and poured insulation service that included sourcing, delivering and installing the screed and insulation on site from our mobile screed factory inside the mixer truck.
- The Clockwork Screed state-of-the-art mixer truck batched the exact volume of liquid floor screed and insulation required on site without the need for top-up deliveries.
- Batching to required quantities produced zero waste and the client was only charged for what he used, which is beneficial to the environment and to the client's pocket.
- Our liquid floor screed installation produced smooth, level floors that are durable and the perfect base for a final floor finish.
- The ease of installation created little disruption for the client or other trades. Our teams can cover 1000m<sup>2</sup> in a day.

- Because our liquid floor screed is dry enough to withstand footfall within 48 hours there were no delays to other works on the project.
- The area was kept clean because the screed and insulation were pumped directly to where it was needed.
- Our cementitious floor screed delivers exceptional thermal conductivity which will enhance the responsiveness and performance of the client's underfloor heating system. It also self-compacts so won't produce voids around the pipework.

**Do you need liquid floor screed or poured insulation for your project?**

[Get in touch](#) with Clockwork Screed for more information about our services.