

# CLAYBOARD

USING DUFAYLITE TECHNOLOGY

Our board is made from a hexagonal recycled paper honeycomb core with a heavy-duty polypropylene top and bottom. Clayboard is installed beneath in-situ concrete slabs and beams, to which water is later introduced, to weaken the core. Compression is not required to weaken the product, therefore virtually no load is transmitted to the foundation when in use under slabs, beams and pile caps.



## Features

- Cost effective
- Can be used to create separation layers
- Installed on a sand blinding layer
- Reduced depth and therefore less excavation, only 10mm thicker than the void requirement
- Suitable for all slab weights
- Prewrapping service to keep dry during installation
- Made from recycled materials and recyclable
- No uplift on the slab therefore less rebar and installation time is needed within the slab

## The Stats

### Clayboard

| Strength Grade     | Board Size      | Void Requirement           | Depth of Clayboard Required | Max Slab Thickness | Up Lift to Slab (kn/m2) |
|--------------------|-----------------|----------------------------|-----------------------------|--------------------|-------------------------|
| Residential (30kn) | 2440mm x 1000mm | 50mm, 75mm<br>100mm, 150mm | 60mm, 85mm<br>110mm, 160mm  | 500mm              | up to 3                 |
| Commercial (90Kn)  | 2440mm x 1000mm | 50mm, 75mm<br>100mm, 150mm | 60mm, 85mm<br>110mm, 160mm  | 1000mm             | up to 3                 |

### Engineered Polystyrene

|       |                 |                           |                       |       |          |
|-------|-----------------|---------------------------|-----------------------|-------|----------|
| 7/10  | 2440mm x 1220mm | 50mm, 75mm<br>100mm 150mm | 90mm, 160mm,<br>225mm | 220mm | up to 10 |
| 9/13  | 2440mm x 1220mm | 50mm, 75mm<br>100mm 150mm | x                     | 300mm | up to 13 |
| 13/18 | 2440mm x 1220mm | 50mm, 75mm<br>100mm 150mm | 90mm, 160mm,<br>225mm | 460mm | up to 18 |
| 18/24 | 2440mm x 1220mm | 50mm, 75mm<br>100mm 150mm | 90mm, 160mm,<br>225mm | 660mm | up to 24 |

## Did you know?

### Our void formers can save you money

Our board is up to 50% thinner than our competitors, which will reduce muckaway costs. As our board create virtually no uplift, less rebar reinforcements are needed in the foundation layer, which can result in significant savings.

# Muck away savings case studies



## Void former solution for world leading scientific facility

**45m<sup>3</sup> of muck away saved**

Diamond Light Source is the UK's largest synchrotron which works like a giant microscope, harnessing the power of electrons to produce bright light that helps scientists to study anything from fossils to jet engines and vaccines.

### The Opportunity

The end client was looking to extend the facility and had retained specifiers, Jacob Gibb, to determine how best to approach the development. The site at Harwell was not clay, but most a free draining soil over a chalk base. There would be no issues with clay heave, but due to the complexity and sensitivity of the equipment that would be installed at the centre, a void solution was needed. Operators needed a gap between the floor slab and the subsoil to prevent any ground vibrations from interfering with experiments.

### The Solution

The client came to us as they wanted to work with an established and recognised company with years of experience working on complex, large scale projects. By visiting the specifier and ground worker offices, we got a solid understanding of the site, what was required and what we could achieve within the necessary timescales. We recommended a cast in-situ 60mm KN90 slab, rather than a pre-cast beam and block as it would produce the necessary void. We worked closely with the specifiers and groundworkers to agree pricing and delivery schedules and also visited the site to ensure everything successfully installed.

### The Outcome

Our 60mm Commercial Clayboard® was installed on time and within the agreed budget. The client was impressed with our consultative approach and the undeniable quality of our products and has since retained our services on subsequent developments at the site.



## Commercial Clayboard in New York Subway

**390m<sup>3</sup> of muck away saved**

### The Opportunity

The client was planning to construct a large, multi-storey building to consist of condos and a hotel in downtown Brooklyn, New York. The site had previously been a car park and had a subway tunnel running directly beneath it. We were approached to design and supply a solution that would prevent the load of the new structure from compromising the tunnel below, but also provide a separation layer to reduce vibration from the subway being felt in the building above.

### The Solution

The client approached us having searched for void former suppliers online. After reading more about what we could do, along with seeing examples of our previous work, they got in touch with our team in the UK. We liaised closely with the various teams involved in the project to get a detailed understanding of the exact specifications and engineering requirements. We used email, Skype, phone calls and shared screen meetings to keep communication flowing. We recommended Commercial Clayboard® at its heaviest grade due to the depth of pour. The situation did not involve potential heave, and as such we recommended a supporting Voidpak system to add water and degenerate the core to create the void.

### The Outcome

Following a successful trial of the product, we made slight modifications to save the client money on shipping costs. The panels were purchased, manufactured and shipped to the site in Brooklyn within a fortnight. The development is ongoing and its progress can be viewed from Google maps.

For more information about how our products can save money, simply call us on **01480 215000** or email **clayboard@dufaylite.com**

**clayboard.co.uk**