INSTALLATION GUIDE

CELLCORE

HXS, HXB, HX PLUS, HG

Product Identification:

- All Cellcore panels are clearly labelled, confirming the product type, depth, grade and dimensions.

Product Selection & Suitability:

- The suitability of Cellcore for the application it is intended should be based upon the recommendations and specification of the Project Design Team and in accordance with the following:
  - > NHBC guidance (where applicable)
  - > BBA Agrement Certificate No. 11/4862
  - > Cordek Cellcore Data Sheet

Storage & Handling

- All products are delivered in a polythene wrapping and are clearly labelled. Both packs of Cellcore and individual panels can be manually handled and offloaded upon delivery, taking into account any site specific manual handling regulations.
- Due to the relatively light nature of the product, all Cellcore packs / panels should be weighted down or secured should they be stored outside prior to installation. No further storage requirements are needed as the product is unaffected by both UV light and water.
- Cellcore panels must not be exposed to flame or ignition. Careful consideration should also be given to the management of fire risk when in storage; detailed guidance is given in the material safety data sheet packaged with the product.

For further guidance on product selection and suitability, please consult the Technical Team on 01403 799600, techsupport@cordek.com or visit our website at www.cordek.com.

INSTALLATION

General:

- The excavations for the ground beams or foundations must be carried out generally in accordance with BS 6031:2009 paying particular attention to any site specific safety procedures or requirements.
- Installation of the Cellcore panels should be undertaken from outside the excavation where possible unless appropriate measures are in place to allow safe entry. Precautions should be taken to ensure the sides of the excavation do not collapse during installation of the product, for example using shoring.
- Heavy foot traffic directly on the Cellcore panels, particularly the edges, should be avoided or alternatively the use of walking boards should be adopted.
- Cellcore panels are suitable for horizontal (flat) installation only and should not be installed vertically or on a sloping surface. If there is a requirement to form an angled thickening in the slab e.g. adjacent to a ground beam, the use of Cordek Filcor EPS fillets should be considered.
- Where the design indicates, it is permissible to ‘double stack’ i.e. install two layers of Cellcore panels. The upper layer of panels should be installed so that the joints are staggered and offset against the joints of the layer beneath.
- Where there is a requirement to cut the panels, this should be undertaken using a fine-toothed saw or hot wire cutter (available for hire from Cordek). Cellcore panels should not be cut to a width less than 300mm to maintain stability.

Preparation:

- Cellcore panels should be placed upon a suitable firm and level surface. Typically, a layer of concrete blinding beneath the panels is recommended.

Procedure:

- Cellcore panels should be positioned with the white polypropylene board facing upward and the moulded EPS cellular structure below. Individual panels should be butted together, staggering the joints where possible, with taping of the joints using the Cordek Formwork Tape to avoid any grout loss between them.
- Where a membrane e.g. DPM is proposed, this should be positioned above the Cellcore panels, not beneath, to maintain its integrity should ground heave occur.
- For piled ground beams, the top of each pile should be trimmed so that it extends slightly above the proposed underside of the ground beam. Each pile

should penetrate the Cellcore panel to allow for an approximate 50mm thickness of concrete blinding on top where applicable* and a keying depth into the ground beam based upon the project specific design.

- When installing Cellcore adjacent to piles, the use of Heaveguard pile collars should be considered. Pile collars are available in various depths to match that of the Cellcore panels, with an internal void to suit the diameter of the pile.

Concrete Placement:

- Reinforcement spacers can be positioned directly upon the Cellcore panels or on the concrete blinding, where required*.
- The number, type and frequency of the reinforcement spacers should be selected to achieve adequate load spread from the reinforcement and site traffic on to the Cellcore panels. Further guidance on the use of reinforcement spacers can be found in the relevant Cordek data sheets and in BS 7973-1 (2001).
- Reinforcement or other construction materials should not be stockpiled on top of the Cellcore panels.
- Surcharging should be avoided when placing concrete on to the Cellcore panels. Concrete pumping equipment should not be positioned on the panels unless approval from the project design team has been given.
- Care should be taken to ensure that concrete does not ingress beneath the Cellcore panels during pouring. The use of a suitable formwork system to prevent this should be considered.
- The depth of concrete placed above the Cellcore panels must not exceed that stated in the relevant product literature. If the depth of concrete proposed exceeds that stated for the panel type being used, multiple pours may be considered providing that the initial pour does not exceed the maximum permissible depth allowed and the load from subsequent pours is transferred to the foundations and not the Cellcore panels.
- Construction of columns, walls etc above the slab / ground beam / pile cap should not take place until the concrete has cured sufficiently to allow load transfer to the foundations below, to avoid surcharging the Cellcore panels and exceeding their stated safe load capacity.

* The use of a 50 mm thickness of concrete blinding should be considered where heavy reinforcement is proposed or where the reinforcement will be subjected to significant point loads from foot traffic or other imposed loading.