



HiDECK® Structural

High Conductivity Structural Floorboard

- ⬡ Installation guidelines
- ⬡ Proven constructions
- ⬡ Technical data sheets
- ⬡ Top tips



INSTALLATION GUIDE

Storage of HiDECK® Structural

HiDECK® Structural should be stored on a pallet in dry conditions on a dry, flat and level base.

If you are required to re-stack the boards, we advise that they are stored on a pallet and are fully supported from the underside. Care should be taken not to damage the edges of the board whilst re-stacking.

Pallets of **HiDECK® Structural** must not be stacked on top of each other.



HiDECK® Structural is supplied on pallets, wrapped in temporary protection. This covering is to offer dust protection and a temporary measure to protect the boards from the weather during the loading/unloading process, it is **not** a waterproof cover.

HiDECK® Structural is an internal product and should remain dry at all times. If the product is to be temporarily stored outside appropriate measures are required to protect the boards from moisture, such as a suitable waterproof tarpaulin or sheeting.

The stacking of the boards on their edges, should be avoided as this can lead to damage of the tongue and/or groove.

HiDECK® Structural must be left to acclimatise in the installation location for 48 hours prior to install.

Moisture Damage

Whilst **HiDECK® Structural** is a dimensionally stable product, even when wet, boards effected by moisture should be left to dry out completely on a level surface and be assessed for suitability before being installed.

Should the boards become saturated during storage or in-situ, we strongly advise contacting our technical department on 01634 296677 and arranging a site survey to review the products suitability.









Attention should be paid to all health & safety regulations. For Safety Data Sheets please contact the technical department.

CELLECTA is constantly reviewing all of its guidance and best practices and therefore reserve the right to alter specifications and guidance at any time and without notice.

The information contained in this document is based on **CELLECTA's** experience and represents best practices at the time of writing.

Pre-Installation

Before commencing installation, take time to familiarise yourself with the products and installation instructions. To complete the installation you will need the following items:

- | | |
|--|--|
|  HiDECK® Structural Boards |  Hand or circular saw |
|  CELLECTA Pro Adhesive |  Tape measure |
|  YELOfon® Edge Strip |  Club hammer |

Sub-Floor Preparation

Prior to installing the **HiDECK® Structural**, it is important that the subfloors are dry, level and structurally sound. The battens should be levelled to have a tolerance of at least SR2, this equates to a maximum 5mm gap over a two metre straight edge.

A concrete floor should have a maximum relative humidity of 75% or lower when measured in accordance with BS8203. If this level is not reached a DPM should be designed in. Please seek the advice of a specialist if deemed necessary.

Underfloor Heating Systems

If installing underfloor heating systems in between the battens, take time to familiarise yourself with the layout of the pipework and underfloor heating panels. It is important to carry out all required tests on the underfloor heating system, including pressure testing prior to fixing the overlay board in place. Do not use the underfloor heating to artificially dry any adhesive.

Please contact our technical team for further advice on load capabilities, heat outputs or acoustic performance on 01634 296677.

Installation of Battens

DECKfon® Batten 45/70

Starting in the far left hand corner of the room, install **DECKfon® Batten 45/70** foam side down, around the perimeter of the room, leaving a 50mm gap between the batten and the walls.

Place subsequent rows of **DECKfon® Battens** across the floor at a maximum of 400mm centres. Install any mineral wool required between the rows of battens.

RUBBERfon® Cradle & Batten

Starting in the far left hand corner of the room, place the first cradle 10mm away from both walls.

Install cradles around the perimeter of the floor at a maximum of 400mm centres, place 45mm wide timber battens into the cradle (depth to suit floor height required), ensure a cradle is installed to support the ends of the timber battens. Cradles along the timber should be placed at centres suitable for the loading of the floor (typically 600mm).

Utilising a laser level, identify where the floor needs levelling and by how much, install the correct depth of packer underneath the timber.

Install any mineral wool required between the rows of batten.

Installation of HiDECK® Structural

Starting in the far left hand corner of the room, or the corner furthest away from the door, install the first **HiDECK® Structural** board at a 90 degree angle to the timber battens, ensuring that a gap of 6-8mm is left between the board and the wall.

TOP TIP - Use suitable plastic packers instead of the **YELOfon® Edge Strip** to maintain the gap and avoid compression of the edge strip.

Run a bead of **CELLECTA Pro Adhesive** along all grooves on the short edge of the installed **HiDECK® Structural** and interlock the next board, ensuring the joints are flush and the edges line up. Continue installing the boards until you get to the end of the row.

At wall abutments, measure the gap from the edge of the installed row to the wall allowing for a 6-8mm gap between the wall and the board.

Using a hand or circular saw cut the **HiDECK® Structural** to the required length. Although not hazardous, cutting of **HiDECK® Structural** can produce a fine dust, ensure a suitable face mask and dust extraction are used and cut the boards in a well ventilated area and in accordance with the product's Safety Data Sheet.

Install **CELLECTA Pro Adhesive** in to all grooves and install to complete the row, ensuring that there are no gaps between any of the boards. If the short edges of the board do not meet on a timber batten, install additional support underneath using an off cut of the batten system.

Apply a bead of **CELLECTA Pro Adhesive** along both grooves of the long edge and, ensuring the cut is on the outside, install the off cut of **HiDECK® Structural** to begin the next row. Off cuts installed should be no less than 200mm in width.

Install the remainder of the row, making sure the joints of the short edge stagger by at least 30mm. If required gently tap the board with a club hammer to ensure there are no gaps between any of the boards.

Continue to install the remainder of the **HiDECK® Structural** in a brick bond formation ensuring all boards are glued and tightly interlocked.

Installation of YELOfon Edge Strip

Remove the packing shims from around the edge of the room and install **YELOfon® Edging strip** around all perimeters to isolate the **HiDECK® Structural** from the wall and stop flanking transmission.

All plasterboard, as well as the skirting boards **must be** isolated from the **HiDECK® Structural** by the **YELOfon® Edge strip**, failure to do so may result in acoustic failure.

Any soil pipes or services that penetrate the **HiDECK® Structural** should be isolated from the board with edge strip.

TOP TIP - If undertaking dry lining after the boards have been installed, care should be taken to protect the **HiDECK® Structural** from excessive point loads of further trades (ie. plasterboard trolleys). Should it be deemed necessary please seek further loading advice from a structural engineer.

The completed floor should not be walked on for at least 24 hours to ensure that all adhesive has fully cured.

Partitions and thresholds

Any internal partitions built off the subfloor must be isolated from the floor treatment using the **YELOfon® Edge Strip**. Should lightweight, non-loadbearing partitions be build off the acoustic treatment, battens should be doubled up underneath for additional support.

Partitions and thresholds (continued)

At a door threshold, place one batten under the leading edge of the apartments floor deck and one under the communal areas floor deck, leaving a 5mm (min) gap between the overlay board. Ensure that any detail complies with the regulations set out in **Part B of building regulations (Fire Safety)**.

Sanitary Wear & Kitchen Units

Under high load areas, such as kitchen or bathrooms, bring the centres of the battens and/or cradles in to create a 300mm x 300mm grid. Should it be deemed necessary please seek further loading advice from a structural engineer.

Floor Finishes

Carpet

Underlays and carpet can be installed directly over the **HiDECK® Structural** without additional preparation. If bonding carpet tiles, follow the below steps to prime the floor prior to installation.

Wooden and laminate floors

Ensure any wood flooring is acclimatised to the room it will be installed in, in accordance with the manufacturers guidance. Where possible wood flooring should be laid at a 90 degree angle to the **HiDECK® Structural**.

Allow suitable expansion joints around the perimeter of the room in line with the manufacturers advice.

If the flooring needs to be adhered to the **HiDECK® Structural**, the board will need priming using **CELLECTA MP60 Primer**.

Tiles

Before installing any tiles, take time to plan and review the installation guidelines from the tile manufacturer. All tiles should be installed in line with these and the relevant British Standards.

Prime and seal the floor using **CELLECTA MP60 Primer** to the clean dry surface using a long handled foam roller, do not pour directly onto the **HiDECK® Structural**. Allow to thoroughly dry (approx 2-4 hours).

Do not use in confined spaces without adequate ventilation and wear suitable clothing, gloves and face mask. For full details, see **CELLECTA's** Safety Data Sheets. Once dried, install the tile adhesive onto the primed **HiDECK® Structural** and install tiles in accordance with the manufacturers guidelines.

TOP TIP - Where possible, tiles should be installed from the centre of the floor outward to ensure cuts are positioned against the perimeter of the room.

For larger format tiles, speak to our technical team prior to commencing installation. For natural stone tiles a decoupling membrane may be required, please check with your tile manufacturer before installing.

Vinyl

If installed correctly, **HiDECK® Structural** will give a seamless finish that can accept vinyl flooring directly. Remove any debris from the surface of the boards and scrape away any excess adhesive from the joints.

Carefully check the floor installation to identify any imperfections that may show through the vinyl. For minor repairs mix **CELLECTA FC180** to the desired consistency with cold clean water - typically using 200ml of water to 1kg of powder. In a clean container, sprinkle in the **CELLECTA FC180** to the water whilst mixing vigorously until lump free. Mix only as much as can be applied within 10-15 minutes.

Floor Finishes (continued)

Spread the **CELLECTA FC180** mix evenly into the areas in need of repair with a smoothing trowel. Leave for approx. 15 minutes and then re-work to smooth. Sand back any excess ridges that may show through the vinyl.

Should it be deemed necessary, **CELLECTA RL24** can be installed over the **HiDECK® Structural**. Follow the above steps to ensure that no levelling compound can migrate through any larger gaps between the boards.

Prime and seal the **HiDECK® Structural** in accordance with the instructions above. In a clean container, mix **CELLECTA RL24** in a ratio of 25kg of dry powder to 6 litres of clean water to a smooth and lump free consistency (ratio to be maintained for part quantities).

Using a smoothing trowel, apply to the prepared surface to the required thickness. Allow to fully dry before proceeding (24 hours @ 3mm). Vinyl can be installed directly to the RL24 without additional primer.

Acoustic and Underfloor Heating Solutions

To satisfy the demands for underfloor heating systems embodied within the floor structure, **CELLECTA's** innovative approach has resulted in a range of acoustic treatments with UFH fully integrated. Each treatment delivers market leading performance, whatever the floor structure or heating source.

Dry Laid Levelling Solution

CELLECTA's Gobi® is the ideal solution to level an uneven concrete separating floor and provide all the benefits an underfloor heating system can deliver, with the added advantages of rapid heat transfer capabilities and outstanding acoustic performance. The dry laid system combines **HiDECK® Structural** boards capable of accepting a multitude of floor finishes, **XFLO® JB-FF** (foil faced) insulation boards and **Robust Detail** compliant **RUBBERfon® Cradle & Batten** System.

Gobi® is suitable for a multitude of domestic, educational, commercial and healthcare underfloor heating projects.



Gobi®

Key Benefits of **CELLECTA's Gobi® System**

- Fully adjustable to suit desired floor height
- Dry installation
- Rapid heating response times
- Outstanding acoustic performance
- **Robust Detail** compliant treatment
- Compatible with any pipe diameter: 10-20mm
- Weighs from as little as 32kg/m², compared to 170kg/m² for a 75mm screed
- Accepts all floor finishes, including ceramic tiles, LVT, and vinyls
- Components made from 100% recycled, high impact polypropylene
- 100% recycled gypsum and cellulose decking board
- PEFC/FSC certified timber battens
- ISO 9001 and 14001 certified production

HiDECK® Structural

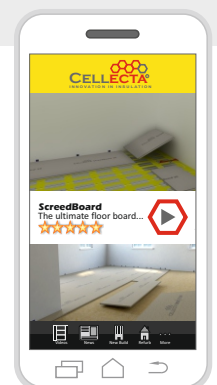
XFLO® JB-FF

RUBBERfon® Cradles

FREE services offered by **CELLECTA:**

- Technical and installation advice
- Architectural drawings and NBS specs
- U-value and imposed load calculations
- Site surveys and take-off service
- Arrange acoustic testing
- Present RIBA certified CPDs

For on the go access to information, including installation videos & technical data, download the **CELLECTA app** for smart phones and tablet devices.



HiDECK® Structural 25, 28 & 30

High Conductivity Structural Floorboard



Product Information

CELLECTA's HiDECK® Structural is a highly conductive structural floorboard ideal for acoustic batten & cradle and batten applications incorporating an underfloor heating system. The board's rapid heat transfer characteristics enables an UFH system to operate more efficiently, providing long term running cost savings.

Product Benefits

- ⊗ Outstanding acoustic and fire performance
- ⊗ **Robust Detail** proprietary floorboard for FFT1, 2 & 3
- ⊗ Low thermal resistance - Perfect for UFH applications
- ⊗ Suitable for steel, concrete and timber floors
- ⊗ Directly accepts all types of floor covering, inc. tiles

Technical Data

		HiDECK® Structural		
		25	28	30
Product description	-	Tongue and groove, high density gypsum, low thermal resistance structural floorboard		
Thickness'	mm	25	28	30
Thermal resistance	m²K/W	0.0625	0.070	0.075
Bearing spacing (45mm wide)	mm	400 (max) centers	400 (max) centers	400 (max) centers
Board dimensions	mm	600 x 1200	600 x 1200	600 x 1200
Weight	kg/m² kg/board	31.25 22.50	35.00 25.20	37.50 27.00
Associated flanking strip required	-	YELOfon ES5/120	YELOfon ES5/120	YELOfon ES5/120

Third Party Accreditation and Approvals

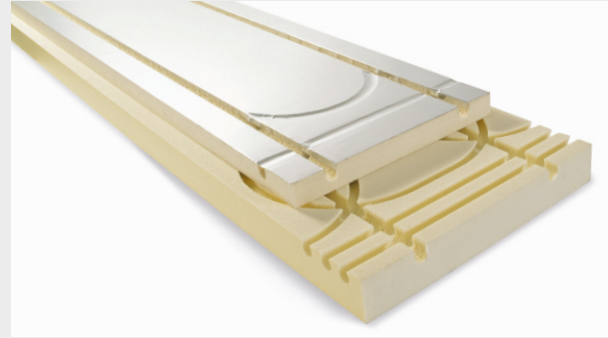


Environmental Credentials



XFLO® JB & JB-FF

Between Battens and Joists Underfloor Heating Floorboards



Product Information

XFLO® JB are designed to be installed between either timber floor joists or acoustic timber battens systems. XFLO® JB-FF boards have an aluminium foil facing for added thermal diffusion. Both boards are manufactured to suit the pipe diameter and spacing required to achieve the desired thermal output.

Product Benefits

- ⊗ Fit between timber joists or battens
- ⊗ Manufactured to suit pipe and spacing required
- ⊗ Works in conjunction with CELLECTA's Cradle and Batten acoustic floor levelling system

Technical Information

		XFLO®	
		JB	JB-FF
Product description	-	Between joist /batten UFH board	Foil faced between joist/batten UFH brd
Strength at 10% compression	kPa	250/300	250/300
Thermal conductivity	W/mK	0.033	0.033
Temperature range	°C	-50/+75	-50/+75
Route sizes available (to suit pipe diameter)	mm	10, 12, 15, 16, 18, 20	10, 12, 15, 16, 18, 20
Pipe centres	mm	150, 200	150, 200
Board sizes	mm	300 x 1250 350 x 1200	300 x 1250 340 x 1200
Thickness' (other sizes manufactured to order)	mm	30, 40, 50	30, 40, 50

Third Party Accreditation and Approvals



Environmental Credentials



DECKfon® Batten 45 & 70

Resilient Composite Acoustic Battens



Product Information

DECKfon® acoustic battens consist of a layer of recycled, low resonance, open-cell, flexible polyurethane foam bonded to a FSC®/PEFC® certified timber batten. The battens have been rigorously tested, and are **Robust Detail** compliant for steel, concrete & timber separating floor applications.

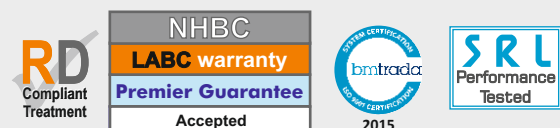
Product Benefits

- Outstanding acoustic performance
Robust Detail FFT1 & 3 compliant
- Suitable for all types of separating floors
- Two heights available: 45 & 70mm*
- FSC®/PEFC® certified timber batten

Technical Data

		DECKfon®	
		Batten 45	Batten 70
Product description	-	Resilient composite shallow batten	Resilient composite deep batten
Design height* (when loaded to 25kg/m²)	mm	45	70
Pre-loaded height	mm	50	75
Batten dimensions	mm	45 (wide) x 2400 (long)	45 (wide) x 2400 (long)
Resilient layer	-	10mm open-cell polyurethane foam	10mm open-cell polyurethane foam
Weight	kg/lm kg/length	0.80 1.92	1.57 3.77
Associated flanking strip required	-	YELOfon ES5/100	YELOfon ES5/120

Third Party Accreditation and Approvals



Environmental Credentials



RUBBERfon® Cradles & Batten

Acoustic Floor Levelling System



Product Information

RUBBERfon® Robust Detail FFT2 compliant acoustic **Cradles** utilise incremental high impact polypropylene plastic packers and elevation blocks to quickly and easily level an uneven structural floor. Softwood battens are then incorporated to support the floor decking board. The system also allows easy integration of an UFH system.

Product Benefits

- Outstanding acoustic performance
- **Robust Detail FFT2** compliant
- Levels all types of separating floors
- Three levelling packer: 2, 3, 5mm
- Two elevation blocks: 15 & 30mm

Technical Data

		RUBBERfon®	
		Cradles	Timber Batten 40 & 65*
Product description	-	High impact polypropylene acoustic levelling cradle	Kiln dried, regularised, planed softwood
Dimensions	mm	10 x 100 x 100	40 x 45 x 2400 65 x 45 x 2400
Cradle height (when loaded to 25kg/m²)	mm	10	*Other sizes available upon request
Resilient pad composition	mm	Recycled re-bonded rubber crumb	
Associated flanking strip required	-	YELOfon ES5/100	
Levelling packers (recycled polypropylene)		2, 3, 5mm	
Elevation blocks (recycled polypropylene)		15, 30mm	

Third Party Accreditation and Approvals



Environmental Credentials



Adhesives & Floor Primer

CELLECTA PRO Adhesive: Multi purpose, moisture curing polyurethane (MCPU) joint adhesive



Bottle size	1kg
Typical coverage	33m ²
Curing time	24 hours
Application	Bonding HiDECK , ScreedBoard & timber treatments T & G edges

CELLECTA fon Adhesive: Modified yellow PVA



Bottle size	1kg
Typical coverage	33m ²
Curing time	24 hours
Application	Bonding timber treatments T&G edges

CELLECTA HB724 Adhesive: Water based dispersion adhesive for bonding treatments to concrete/screeded floors



Tub size	14kg
Typical coverage	≤46m ²
Curing time	1 hour high grab 24 hours full bond
Application	Bonding floor coverings to base floors

CELLECTA MP60 Primer: Multi-purpose dispersion primer for preparation of surface prior to fixing floor tiles



Bottle size	5kg
Typical coverage	60m ²
Curing time	24 hours
Application	Sealing high density gypsum boards

	Suitable Adhesive		
	PRO	fon	HB724
Acoustic treatment			
ScreedBoard® 20, 28, 30 boards	✓		
HiDECK® 25, 28, 30 Structural boards	✓		
DECKfon® 17T, 26T, 30T, 37T & Quattro 39 boards		✓	
FIBREfon® 12C, 21C & 28C boards		✓	
XFLO® Micro, Micro FF & TB boards			✓
DECKfon® ULTRAlay 5			✓
RUBBERfon® ULTRAtop 3 & 5			✓

Levelling Compounds

CELLECTA RL24 Rapid Drying Levelling Screed

Composition: Fibre reinforced levelling compound



Bag size	20kg
Typical coverage	4m ² @ 3mm
Drying time	Foot traffic 2 hours @ 3mm
Installation of floor finish	≤3mm - 24 hours >3mm - 24 hrs/mm

CELLECTA FC180 Feathering coat

Composition: Calcium sulphate repair compound



Bag size	20kg
Typical coverage	13m ² @ 1mm
Drying time	45mm @ 3mm
Installation of floor finish	2 hours @ 3mm

Fixings and Washers

CELLECTA AF100 Acoustic Wall Lining Fixings



Length	100mm
Drill size	8mm
Quantity per box	100
Application	Securing acoustic wall lining insulation boards

CELLECTA FW35 Perforated Counter Sunk Washers



Diameter	35mm
Quantity per box	100
Application	Helping secure insulation boards and treatments

Fixing tools

ScreedBoard® Fixing Batten



Application	Fitting ScreedBoard 20 ScreedBoard 28 ScreedBoard 30
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Floor Board Pull Bar



Application	Fitting ScreedBoards HiDECK Structural Timber treatments
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