



HiDECK[®] Overlay 18

High Density Overlay Board for Underfloor Heating Applications

- ⬡ Installation Guidelines
- ⬡ Proven constructions
- ⬡ Technical data sheets
- ⬡ Top Tips



INSTALLATION GUIDE

HiDECK

June 2019

Storage of HiDECK

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

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

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



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

Prior to installation, **HiDECK** should be left to acclimatise for 48 hours in the installation space, remove the temporary packaging for this process.



Moisture Damage

Whilst **HiDECK** is a dimensionally stable product, even when wet, any wet boards 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 to arrange 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. Cellacta 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 Cellacta's experience and represents best practices at the time of writing.

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1. 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 18 |  Hand or circular saw |
|  Pro Adhesive |  Tape measure |
|  YELOfon ES/FS Strip |  Club hammer |
|  6-8mm packers | |

2. Sub-Floor Preparation

Prior to installing the **HiDECK Overlay 18**, ensure that the substrate is level and structurally sound. The floor should 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.

3. Underfloor Heating Systems

If installing the **HiDECK Overlay 18** over an underfloor heating system, it is important to carry out all required tests on the underfloor heating system, including pressure testing. Do not use the underfloor heating to artificially dry the adhesive.

CELLECTA highly recommends that **HiDECK Overlay 18** is installed over insulation panels with a high compressive strength such as **HEXATHERM XFLO**.

If a resilient layer is required to meet the acoustic requirements laid out in Part E of building regulations then this will need to be installed underneath the underfloor heating system or allowed for in any heat output calculations.

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

3. Installation of HiDECK Overlay 18

Starting in the far left hand corner of the room, place 6-8mm packers against both walls and install the first **HiDECK Overlay 18** with the tongue of the short and long side facing the wall.

TOP TIP - Do not use the **YELOfon FS/ES** in place of packers as this is a compressible material

Run a bead of **CELLECTA Pro Adhesive** along the short groove of the **HiDECK Overlay 18**. Interlock the next board of **HiDECK Overlay 18**, ensuring the joints are flush and the edges line up exactly.

At wall abutments, measure the gap from the laid **HiDECK** to the wall allowing for a 5mm gap between the wall and the **HiDECK**.

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3. Installation of HiDECK Overlay 18 (cont)

Using a hand or circular saw cut the **HiDECK** to the required length. Although not hazardous, **HiDECK** can produce a fine dust when cut. Ensure suitable face mask and dust extraction are used and cut the boards in a well ventilated area in accordance with the Safety Data Sheet.

Install **Pro Adhesive** in the groove and install to complete the row, ensure there are no gaps between any of the boards.

Apply a bead of **Pro Adhesive** along the long edge of the first board of **HiDECK Overlay 18**. Ensuring the cut is on the outside, use the off cut of **HiDECK** to begin the next row. Where possible, it is advised that any off cut should be no less than 100mm in width.

Install the long edge of the **HiDECK**, leaving approximately a 30mm gap between the short edges. Ensure there is no gap between the long edge. If required gently tap the board with a club hammer to ensure there are no gaps.

Install the remainder of the **HiDECK** in a brick bond formation ensuring all boards are glued and tightly interlocked. If utilising the **HiDECK Overlay 18** as part of an acoustic system, it is important that none of the boards are in contact with any walls or door treatments as this can result in acoustic failure.

Remove the packing shims from around the **HiDECK** and install **YELOfon ES/FS strip** around all perimeters to isolate the **HiDECK** and stop flanking transmission.

Any soil pipes or services that penetrate the **HiDECK** should be isolated from the board using **YELOfon ES/FS**.

All plasterboard, as well as the skirting boards **must be** isolated from the **HiDECK** by the **YELOfon FS Strip**.

If undertaking dry lining after the boards have been installed, care should be taken to protect the **HiDECK** from excessive point loads of further trades (ie. plasterboard trolleys).

4. Floor Finishes

Carpet

Underlays and carpet can be installed directly over the **HiDECK Overlay 18** without additional preparation. If mechanically fixing carpet grippers, care must be taken not to penetrate the resilient layer.

If bonding carpet tiles to the **HiDECK** 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 manufactures guidance. Where possible wood flooring should be laid at a 90 degree angle to the **HiDECK**.

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

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Wooden and laminate floors (cont)

If wooden flooring needs to be mechanically fixed, care should be taken to not penetrate the resilient layer. If the flooring needs to be adhered to the **HiDECK**, the board will need priming.

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 Primer** to the clean dry surface using a long handled foam roller, do not pour directly onto the **HiDECK**. Allow to thoroughly dry (approx 2-4 hours).

Do not use in confined spaces without adequate ventilation. 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** and install tiles in accordance with the manufacturers guidelines.

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 Overlay 18** will give a seamless finish that can accept vinyl flooring directly. Remove any debris from the surface of the **HiDECK** 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 **FC180** to the water whilst mixing vigorously until lump free. Mix only as much as can be applied within 10-15 minutes.

Spread the **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 Overlay 18**. Follow the above steps to ensure that no levelling compound can migrate through any larger gaps in the **HiDECK**.

Prime and seal the **HiDECK** 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.

HiDECK® Overlay 18

High Density Overlay Board for Under Floor Heating Applications



Product Information

HiDECK Overlay 18 floorboard is ideal for acoustic application incorporating underfloor heating applications due to its high thermal conductivity, enabling the system to run more efficiently, saving on running costs and improving reaction times.

Product Benefits

- ⬢ Low thermal resistance - Perfect for UFH applications
- Robust Detail treatment: **FFT4** compliant
- ⬢ Suitable for all types of steel, concrete and timber floors
- ⬢ Feels like screed and directly accepts tiles
- ⬢ Directly accepts all types of floor covering, inc. tiles

Technical Information

		HiDECK Overlay 18
Product description	-	Low thermal resistance overlay floorboard
Thickness	mm	18
Type and composition	-	Tongue & groove high density gypsum
Thermal resistance	m²/kW	0.045
Board dimensions	mm	600 x 1200
Weight	kg/m² kg/board	21.60 15.55
Associated flanking strip required	-	YELOfon FS50, ESS/100



Third Party Accreditation and Approvals



Environmental Credentials



XFLO®

High Compressive Strength Underfloor Heating Floorboards



Product Information

XFLO boards are manufactured to suit the pipe diameter and spacing required to achieve the desired thermal output. They are made from high compressive strength extruded polystyrene, able to withstand the rigours of the installation process as well as the long term imposed loads imposed in residential and commercial applications.

Product Benefits

- ⬢ High resistance to compression - 250, 300 & 500kPa
- ⬢ Manufactured to suit pipe and spacing required
- ⬢ Works in conjunction with acoustic treatments

Technical Information

		XFLO		
		250	300	500
Product description	-	High strength UFH board	High strength UFH board	Ultra strength UFH board
Strength at 10% compression	kPa	250	300	500
Thermal conductivity	-	0.033	0.033 ≤80mm 0.034 >81mm	0.035
Temperature range	°C	-50/+75	-50/+75	-50/+75
Route sizes available (to suit pipe diameter)	mm	10, 12, 14, 15, 16, 18, 20	10, 12, 14, 15, 16, 18, 20	10, 12, 14, 15, 16, 18, 20
Pipe centres	mm	150, 200, 300	150, 200, 300	150, 200, 300
Board size	mm	600 x 2500	600 x 2500	600 x 1250
Thickness' (other sizes manufactured to order)	mm	20, 25, 30, 35	40, 50, 60, 75	50, 60, 75

Third Party Accreditation and Approvals



Environmental Credentials



FIBREfon® 8,10 & RUBBERfon® 8

High Performance Resilient Layers for Under Floor Heating & ScreedBoard 20 Applications



Product Information

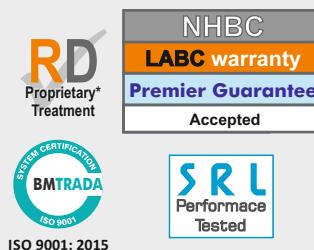
To ensure a **ScreedBoard 20** covered underfloor heating system complies with acoustic performance standards **CELLECTA** offers three resilient layers: **FIBREfon 8***, **10** and **RUBBERfon 8**. Each layer provides high levels of isolation, with all three being **RD FFT4** compliant.

Product Benefits

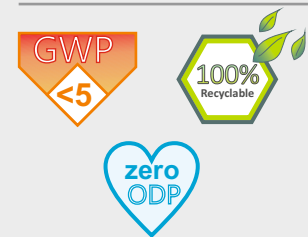
- Excellent acoustic performance - All **RD FFT 4** compliant
- FIBREfon 8*** proprietary layer for **E-FS-3**, **E-FT-5** & **E-FT-6**
- Two thickness' available: 8, 10mm
- Easy to cut to size and quick to install

		FIBREfon		RUBBERfon
		8*	10	8
Product description	-	Ultimate acoustic performance resilient layer	Resilient layer for concrete floor applications	High compressive strength resilient layer
Thickness	mm	8	10	8
Composition	-	70% Recycled polyester fleece	Woodfibre	100% recycled Re-bonded rubber
Board/roll dimensions	m	0.60 x 1.20	0.60 x 1.20	1 x 6
Weight	kg/m² kg/unit	1.00 0.72 (board)	2.36 1.70 (board)	6.00 36.00 (roll)
Applications	-	All floor types	Concrete floors	High load areas
Robust Detail Compliant	-	FFT4 (E-FS-1, E-FC-1 & E-FC-2) E-FS-3 E-FT-5 E-FT-6	FFT4 (E-FS-1, E-FC-1 & E-FC-2)	FFT4 (E-FS-1, E-FC-1 & E-FC-2)

Accreditation and Approvals



Environmental Credentials



Floor Finish Compatibility with Cellecta's Acoustic Treatments

CELLECTA's acoustic treatments can be covered with a multitude of commonly installed floor finishes, including carpet, tiles, luxury vinyl tiles (LVT), vinyl rolls and both engineered and solid wood flooring.

CELLECTA acoustic treatment	Floor finish								
	Carpet	Carpet Tiles ⁽¹⁾	Ceramic Tiles ⁽²⁾	Porcelain Tiles ⁽²⁾	Stone Tiles ⁽³⁾	LVT ⁽⁴⁾	Vinyl ⁽⁴⁾	Engineered wood ⁽⁵⁾	Solid Wood ⁽⁵⁾
ScreedBoard 28	⬢	⬢	⬢	⬢	⬢	⬢	⬢	⬢	⬢
ScreedBoard 20 + XFLO + FIBREfon 8	⬢	⬢	⬢	⬢	⬢	⬢	⬢	⬢	⬢
ScreedBoard 20 + XFLO + FIBREfon 10	⬢	⬢	⬢	⬢	⬢	⬢	⬢	⬢	⬢
ScreedBoard 20 + XFLO + RUBBERfon 8	⬢	⬢	⬢	⬢	⬢	⬢	⬢	⬢	⬢
DECKfon 17T, 26T, 30T, 37T, Quattro 39	⬢	⬢				⬢	⬢	⬢	⬢
FIBREfon 12C, 21C, 28C	⬢	⬢	⬢	⬢	⬢	⬢	⬢	⬢	⬢
DECKfon Ultramat 15	⬢							⬢	⬢
DECKfon Ultralay 5	⬢	⬢						⬢	⬢
RUBBERfon Ultratop 3, 5	⬢	⬢	⬢	⬢	⬢	⬢	⬢	⬢	⬢
XFLO Ultraboard 15, 18			⬢	⬢	⬢			⬢	⬢

Notes. Compatibility of floor finishes is provided as a guide. However, the floor covering manufacturer recommendations must be followed at all times.

- Further preparative measures maybe required when gluing carpet tiles.
- Use appropriate board primer and tile adhesive recommended by the tile manufacture/supplier.
- Use appropriate board primer, tile adhesive and decoupling mat recommended by the tile manufacture/supplier
- Contact manufacturer for suitability and installation advice
- Check with the manufacturer to see if proposed flooring is suitable for UFH applications.

⬢ Suitable

⬢ Contact **CELLECTA** for further advice



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Adhesives, Levelling Screeds, Fixings and Fixing Tools

To ensure each treatment is install correctly and perform effectively, CELLECTA offers a range of specialist high quality accessories, including adhesives, levelling screeds, fixings and fixing tools.



CELLECTA PRO Adhesive
Application: Multi purpose adhesive
Composition: Moisture curing polyurethane (MCPU)
Size: 1kg bottle
Typical coverage: 33m² of boarding



ScreedBoard Primer
Application: Surface preparation prior to fixing floor tiles
Composition: Low odour acrylic in water dispersion
Size: 5kg bottle
Typical coverage: 33m² of boarding



RUBBERfon TSS (Threshold Support Strip)
Application: Provide additional support to a floor treatment at a door threshold, where butt edge boards meet, reducing excessive flex, whilst maintaining acoustic performance.
Compatible treatments: ScreedBoard 28
Composition: 100% recycled re-bonded rubber
Size: 8mm x 75mm x 1000mm



CELLECTA RL24 Rapid Drying Levelling Screed
Composition: Calcium sulphate compound
Size: 25Kg bag
Coverage: 1.5kg/m² per mm
Drying time: Foot traffic 2 hours @ 3mm
Installation of floor finish: 24 hours @ 3mm (24 hours/mm >3mm)



YELOfon FS 6mm thick, non-cross linked, closed cell polyethylene, "L" profiled perimeter flanking strips.
Strip dimensions:
FS15: 6mm x 15mm x 30mm x 2m
FS30: 6mm x 30mm x 30mm x 2m
FS50: 6mm x 50mm x 30mm x 2m



CELLECTA FC180 Feathering Coat
Composition: Calcium sulphate compound
Size: 4.5Kg bag
Coverage: 1.5kg/m² per mm
Drying time: 3 hours
Installation of floor finish: 24 hours @ 3mm



YELOfon ES5 5mm thick, non-cross-linked, closed cell polyethylene, perimeter edge strip.
Roll dimensions:
ES5/15: 5mm x 15mm (h) x 50m
ES5/60: 5mm x 60mm (h) x 50m
ES5/100: 5mm x 100mm (h) x 50m
ES5/120: 5mm x 120mm (h) x 50m
ES5/150: 5mm x 150mm (h) x 50m



ScreedBoard Fixing Batten
Size: 400mm long
ScreedBoard Pull bar

