



**Norbord®**

make it better



**Caberboard®**

[www.norbord.co.uk](http://www.norbord.co.uk)

## About Norbord

Norbord is one of the world's leading manufacturers of engineered wood-based panel products. Our products are used extensively in the construction, furniture and DIY sectors.

Norbord's success comes from the pursuit of excellence in all areas. This is a key driver within Norbord and is integral to how we manage our business. Across all functions we aim to deliver the highest level of achievement as standard.

The result is a company that is responsive with dependable and dedicated customer service without compromising safety or the environment.

Norbord is committed to sourcing all of its timber from responsibly managed forests. All of our European manufacturing facilities have the capacity to produce products certified to Forest Stewardship Council standards.

The FSC® product label allows consumers worldwide to recognise products that support the growth of responsible forest management. In an increasingly environmentally aware marketplace, many demand the FSC® mark on their wood products. With Norbord it comes as standard.

### OUR VALUES





**Product range** p5

**Application guidance** p17

**Installation advice** p23

**Technical data** p27

**Norbord across the globe** p31

## About Caberboard

Caberboard is an engineered panel product used in several applications throughout the construction and furniture industries. The range consists of some of the UK's best known brands in both flooring and furniture grade panels.

### The manufacturing process

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75% of the raw materials used in manufacturing Caberboard are sourced from recycled materials. The recycled components are sorted and broken down into fine strands which have to continuously pass stringent quality examinations.

The Caberboard particleboard range is manufactured at our state-of-the-art mills in the UK. By continually providing high quality boards, the Caberboard name is well known and respected throughout the construction industry.

The mixture of fresh softwood chips and recycled chips are bonded together with a resin under heat and pressure to form a rigid board with a smooth surface. The finished panels are then sanded and cut to size.





## Product range

### Caberfloor

Stable, durable and easy to lay, Caberfloor P5 is a high-strength particleboard, engineered for all domestic and most other floors. This moisture resistant grade of flooring is the most commonly specified in the UK.

### Caberdek

Caberdek consists of a waterproof, slip-resistant film bonded to moisture resistant Caberfloor P5. This not only provides extra protection from the elements but acts as a safe working platform. The protective film has high impact, puncture and tear resistance which stands up to intensive on-site traffic.



## Cabershield

When speed is of the essence, Cabershield flooring won't hold you up. It is manufactured using 22mm P5 grade particle board with a heavy duty PU coating. This is extremely hard wearing and provides excellent anti-slip properties.

## Caberfix

Our Caberfix Floor Fixing Range is a fully approved BBA system that is guaranteed for 42 days of exposure on site when used with Caberdek P5. The range offers exceptional value and a choice of fixing methods that will help you to save time and money as well as make life easier and safer on site.



## Caberfloor overview

A high-density particleboard designed specifically for flooring applications. Available in tongued & grooved or square edged formats – in 18mm and 22mm thickness – Caberfloor is the ideal solution for all domestic and specific commercial flooring. Caberfloor is available in P5 grade.

Caberfloor P5 is the most commonly specified particleboard flooring in the UK. It is extensively used in new build and refurbishment markets. Durability is achieved by using highly moisture resistant resin systems, in the manufacturing process.

Caberfloor is available in a range of panel sizes, and can be quickly and easily laid. It offers precision, stability and provides an excellent surface for subsequent floor laying operations.

With today's demands for rapid construction of both houses and flats, Caberfloor is the ideal solution for the off-site construction of cassette floors.

## Benefits

- Moisture resistant properties allow board to be used in humid conditions
- Strong and robust flooring board
- Creates a silent floor when installed with Joint & Joist flooring adhesive

## Installing Caberfloor

Detailed instructions for installation of Caberfloor can be found on pages 23–26. For a silent floor, free from creaks and squeaks, we recommend installing Caberfloor with Joint & Joist.

Joint & Joist is a flooring adhesive specifically developed to produce a strong flexible bond with acoustic properties. Other adhesives can become brittle and do not adapt to floor movements, meaning that squeaks can develop.

For more information on Joint & Joist see page 13.



## Caberdek Overview

Caberdek is an innovative answer to the demands of the construction industry as it meets two important needs, safety and weather protection. Caberdek incorporates a waterproof, slip-resistant film adhered to moisture resistant Caberfloor P5.

As well as providing extra protection against the elements, Caberdek provides a safe working platform. When correctly installed, Caberdek assists with 'Falls Protection' required within latest regulations.

The protective film has high impact, puncture and tear resistance which stands up to intensive on-site traffic. On completion of construction the Caberdek film can be easily removed; leaving a clean floor surface for the new property owner, saving clean-up costs for the builder.

## Benefits

- Safe working platform – slip-resistant film and assists with fall protection
- Withstands high site traffic – impact, puncture and tear resistant film
- Film is easily removed – saves clean up costs and time
- All systems are fully BBA approved – can be exposed to the elements for 42 days
- 44db sound reduction when used in conjunction with leading I-beam and insulation manufacturers

## Installing Caberdek

To ensure compliance with the BBA certificate, Caberdek must be installed using the Caberfix fixing products. Our recommended installation method involves the Caberfix Pro system which can be purchased either as a kit (2 kits to a pack of Caberdek) or as individual components.

The Caberfix systems provide a fully weather tight installation and when using Joint&Joist adhesive a silent floor.

For more information the range of Caberfix products see pages 13–15.



## Cabershield overview

When speed is of the essence, Cabershield flooring won't hold you up. It is manufactured using 22mm P5 grade chipboard with a heavy duty PU coating. This is extremely hard wearing and provides excellent anti-slip properties.

As you'd expect, Cabershield provides a safe working platform. Providing correct installation it can be exposed during the building process for as long as 42 days without compromising its integrity. That means the other trades can get on with doing what they do best. And you won't have to worry about waterproofing, safety or the quality of the finished floor.

As well as making the floor safe and waterproof, the PU coating on Cabershield is extremely tough and hard wearing. Laying Cabershield may also help to cut costs depending upon specific building technique.

## Benefits

- Meets requirements where customers prefer a permanently bonded coating to a removable film
- Coating is robust and fully waterproof allowing exposure to the weather and site traffic
- Safe working platform – slip-resistant coating and assists with fall protection
- All systems are fully BBA approved – can be exposed to the elements for 42 days

### Installing Cabershield

To ensure compliance with the BBA certificate, Cabershield must be installed using the Caberfix Joint&Joist or D4 flooring adhesives. Joint&Joist or D4 adhesive should be used to bond the board to the joist and in addition, to bond together the tongue & groove of the boards. When boards are pushed together adhesive should squeeze out of the T&G forming a waterproof bond at all joints.

For more information on Joint&Joist adhesive see page 13.



## Caberfix adhesives overview

The range of Caberfix adhesives has been specifically developed for use with our flooring products. All adhesives have undergone comprehensive independent testing and in addition are specified for use in BBA certificates for Caberdek and Cabershield.

Picture	Product name	Description	Features and benefits	Best installed with
	<p><b>Caberfix Joint&amp;Joist</b></p> <p>310ml tube available in boxes of 12 or part 6 of Caberfix Pro kit</p>	<p>CaberfixJoint&amp;Joist is a PU adhesive and sealant. It is used to provide a strong, silent and flexible bond between Caberdek floors and joists.</p>	<ul style="list-style-type: none"> <li>• Silent and flexible bonding layer between floor and joists</li> <li>• Fast setting and easy to use</li> <li>• Only 5 fixings (nails/screws) required per board rather than usual 17 per board</li> </ul>	<p>Caberdek Cabershield</p>
	<p><b>Caberfix T&amp;G PVA</b></p> <p>1 litre bottle available in boxes of 12 or part 6 of Caberfix Pro kit</p>	<p>CaberfixT&amp;G is a powerful, fast setting PVA D3 glue applied to the tongue &amp; groove of Caberdek and Caberfloor.</p>	<ul style="list-style-type: none"> <li>• Superior properties to standard PVA glues</li> <li>• Fast setting</li> <li>• Conforms to DIN EN 204 D3 and BS 476 part 6.</li> </ul>	<p>Caberfloor P5 Caberdek</p>
	<p><b>Caberfix D4</b></p> <p>1 litre bottle available in boxes of 12</p>	<p>Caberfix D4 is a solvent-free, one-component polyurethane adhesive, ideal for bonding boards to joists.</p>	<ul style="list-style-type: none"> <li>• Ideal for bonding flooring boards to joists.</li> <li>• Also suitable for use in the tongue and groove joint.</li> <li>• Meets BS EN 204/D4</li> </ul>	<p>Caberdek Cabershield</p>



## Caberfix tape and kits

When installed as detailed in the BBA certificate, the Caberfix adhesives and tapes provide 42 days of exposure on-site when used with Caberdek. This range offers a choice of fixing methods that will help you save time and money as well as making life easier and safer on-site.

Picture	Product name	Description	Features and benefits	Best installed with
	<p><b>Caberfix Tape</b></p> <p>Ideal for dry conditions</p> <p>50M roll available in boxes of 24 or part of Caberfix Pro kit</p>	<p>CaberfixTape is a polyethylene coated cloth tape for sealing Caberdek perimeters to walls and for sealing joints during construction phases.</p>	<ul style="list-style-type: none"> <li>• High performance polyethylene coated cloth tape</li> <li>• 100% waterproof and UV resistant</li> <li>• Easy to tear and conforms well to irregular surfaces</li> </ul>	Caberdek
	<p><b>Caberfix X-treme Tape</b></p> <p>Ideal for wet and wintery conditions</p> <p>50M roll available in boxes of 12</p>	<p>Caberfix X-treme tape has been formulated to withstand the most severe of weathers. Tested to work in wet and wintery conditions, the incredibly strong acrylic tape is fully waterproof and BBA approved.</p>	<ul style="list-style-type: none"> <li>• Works in wet and extreme cold conditions, even up to -21° C</li> <li>• Scuff resistant so tape won't lift when walked over</li> <li>• Highly durable so will not crack or break</li> </ul>	Caberdek
	<p><b>Caberfix Pro kits</b></p> <p>The contents of the Caberfix Pro Kit have enough components to cover 50m<sup>2</sup> of Caberdek flooring. This makes ordering easier as every pack of Caberdek (100m<sup>2</sup> coverage) requires 2 x Caberfix Pro Kits.</p> <ul style="list-style-type: none"> <li>- 1 x 1kg Caberfix T&amp;G</li> <li>- 7 x 310ml Caberfix Joint&amp;Joist</li> <li>- 6 x 25M rolls of Caberfix Tape</li> </ul>	<p>The CaberfixPro sealing and fixing system takes the following components (T&amp;G PVA, Joint&amp;Joist, Tape) and combines them into an easy to use kit.</p>	<ul style="list-style-type: none"> <li>• Quick and easy to use, all you require for 50m<sup>2</sup> of flooring in one box</li> <li>• Reduce stock holding of multiple components</li> <li>• Easier site deliveries as only need 2 kits per pack of Caberdek</li> </ul>	Caberdek



**BBA**

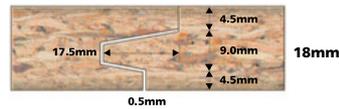
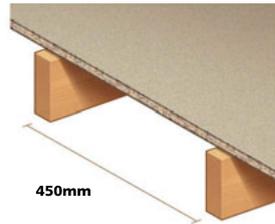
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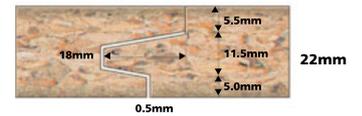
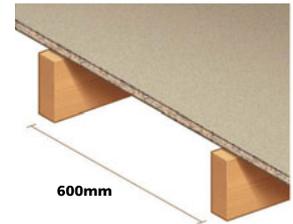
## Application guidance

The following table provides general guidance. For advice on the best product for your specific application, please contact Norbord customer services or technical support on +44 (0)1786 819449.

On joists up to 450mm centres use 18mm board



On joists up to 600mm centres use 22mm board



Specification		General Applications		Flooring		
Grade	Thickness (mm)	Kitchen worktops	General use Non-structural	Dry domestic	Domestic new build & refurbishment	Commercial
Caberfloor P5	18			✓	✓	
Caberfloor P5	22			✓	✓	✓
Caberdek P5	18			✓	✓	
Caberdek P5	22			✓	✓	✓
Cabershield	22			✓	✓	✓
Caberboard P1	12, 18		✓			
Caberboard P2/P3	28, 38	✓				

✓ Suitable



Caberfloor P5 Square Edged



Caberdek T&G

## Advice on storage

On delivery, boards should be stacked on equidistantly spaced battens in a dry, covered area with outside storage adopted only as a last resort. If storage outside is unavoidable, stack on dry level ground and protect the boards by covering with a polythene or waterproof sheet. Ensure that the board edges are covered and secured to avoid lifting by the wind.

An HSE information sheet on the 'safe stacking of sawn material and board materials' is available on request.

### Conditioning

Wood particleboards expand on taking moisture from surrounding air (plus effects of wet trades, site conditions etc.) and shrink on losing it.

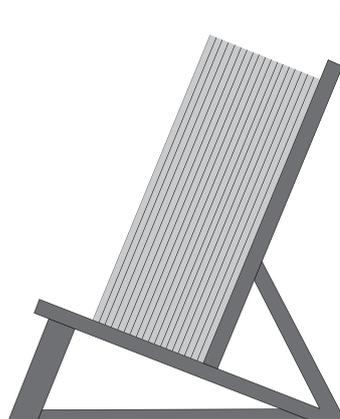
As a guide, a small increase in moisture of 1% increases length and width by 0.25mm per metre. A decrease in moisture of 1% will have a corresponding shrinkage effect. It is clearly desirable to minimise these changes, which can be applied pro-rata, by taking a few simple precautions. Boards should be allowed to reach equilibrium by storing them under the atmospheric conditions in which they are to be used, for a minimum of 48 hours prior to laying. It is recommended that boards are loose stacked, on a minimum of 3 equi-spaced bearers, with spacers between each board to allow free air movement.

### Moisture Content

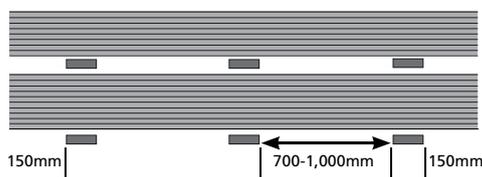
All wood is hygroscopic. Its moisture content, therefore depends on its environment. The moisture content which wood and wood-based products will attain in service (equilibrium moisture content) depends primarily on the atmospheric humidity.

Relative humidity	Approximate equilibrium at 20°C moisture content
%	%
30	7
65	11
85	15

Floors should be laid at a moisture content within the range likely to be encountered in service. They should also be laid after the initial drying out period is complete. It should be noted that sometimes extreme site conditions can lead to shrinkage when the building is finally occupied/heating commissioned etc. Caberfloor products are made at relatively high ex-works moisture contents compared to industry norms. Whilst no product containing around 80% wood in its composition can be unaffected by moisture – Caberfloor P5 at ex-works (around 5-8 % moisture content) is close to the natural equilibrium moisture content of particleboards (see table) and is consequently an excellent choice.



Correct method of edge stacking



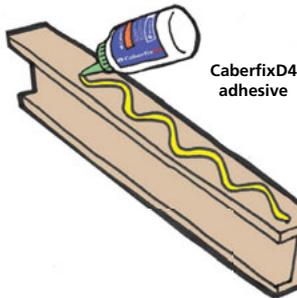
Correct method of storage on battens

# Cabershield® and CaberfixD4®

## Step by step application guide

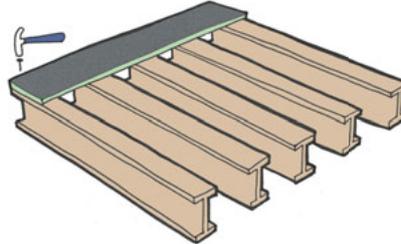
### Step 1. Adhesive I-joist application

Apply one continuous bead of CaberfixD4 adhesive to the top of the joist or I-joist. Use CaberfixD4 adhesive on joists and noggins in the area that is about to be directly laid.



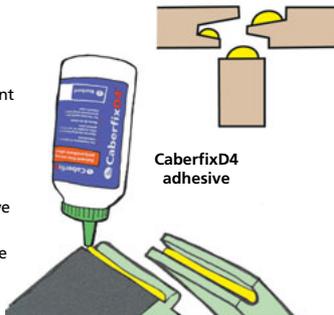
### Step 2. Perimeter panel fixing

Panels should be fixed at perimeter, using annular ringshank nails or screws at 200–300mm centres. Fix flush or just below panel surface.



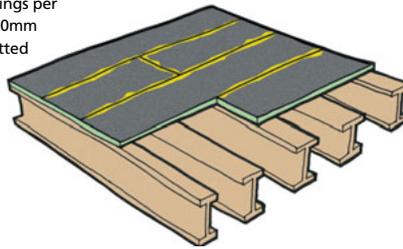
### Step 3. Adhesive Tongue & Groove application

A liberal application of CaberfixD4 Adhesive should be made to both the tongue and groove of the profile joint of each panel to ensure that the entire joint is bonded. When boards are pushed together a small amount of adhesive should be squeezed out of the T&G. This seals the joint at the T&G.



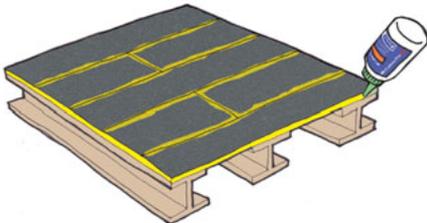
### Step 4. Panel fixings

Continue laying boards in a staggered format. Panels may be secretly nailed through the tongue at T&G joints. For optimum performance we recommend a minimum of 5 mechanical fixings per 22 x 2400 x 600mm board when fitted at 600mm centres.



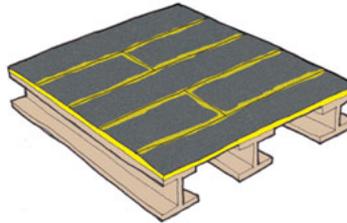
### Step 5. Complete sealing

For complete weather-tightness apply CaberfixD4 to exposed nail heads, cut edges and any exposed perimeter edges.



### Step 6. Clean down

When all construction and decoration work is complete and the building is weather tight, the deck should be cleaned down: Once dry, any excess adhesive should be removed with a scraper.



## Features and benefits

- ✓ Low cost option – minimises on costs.
- ✓ One adhesive – can be used for T&G and bonding onto I-Joist.
- ✓ Easy to use – 1kg easy to hold bottle with easy flow nozzle.
- ✓ Foaming adhesive – can be seen in the joints making sure a seal is made.

## Storage instructions

Protect from frost and moisture. Store in a cool (from +5°C to +25°C), dry place in original unopened packaging. Opened containers must be closed airtight and used up as soon as possible.

## Recommended usage

When using CaberfixD4 adhesive to bond the board to joist, and also the T&G joint, we recommend the following:

Board size	Boards per pack	Required bottles
18mm	80	15
22mm	66	12



## Features and benefits

Manufactured using 22mm P5 grade chipboard with a heavy duty PU coating.

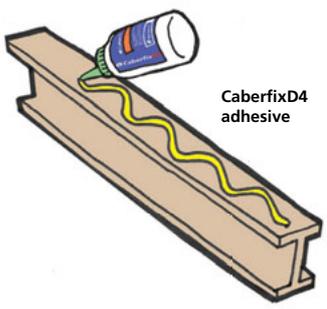
- ✓ Meets requirements where customers prefer a permanently bonded coating to a removable film
- ✓ Coating is robust and fully waterproof allowing exposure to the weather and site traffic
- ✓ Safe working platform – slip-resistant coating and assists with fall protection
- ✓ All systems are fully BBA approved – can be exposed to the elements for 42 days

# Caberdek® and CaberfixD4®

## Step by step application guide

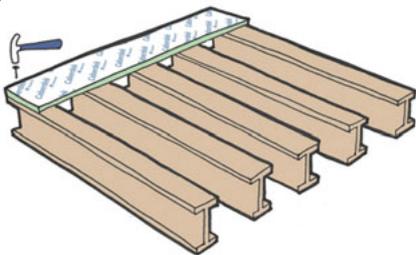
**Step 1. Adhesive I-joint application**

Apply one continuous bead of CaberfixD4 adhesive to the top of the joist or I-joist. Use CaberfixD4 adhesive on joists and noggins in the area that is about to be directly laid.



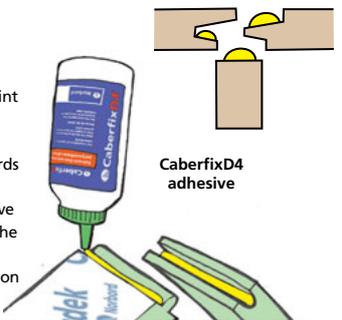
**Step 2. Perimeter panel fixing**

Panels should be fixed at perimeter, using annular ringshank nails or screws at 200–300mm centres. Fix flush or just below panel surface.



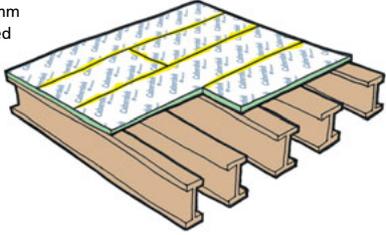
**Step 3. Adhesive Tongue & Groove application**

A liberal application of CaberfixD4 Adhesive should be made to both the tongue and groove of the profile joint of each panel to ensure that the entire joint is bonded. When the boards are pushed together a small amount of adhesive should squeeze out of the T&G, sufficient to cover any exposed chipboard on the joint.



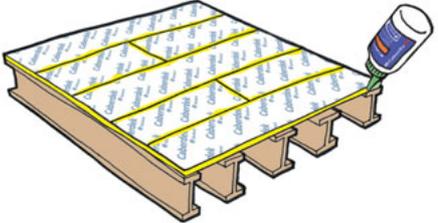
**Step 4. Panel fixings**

Continue laying boards in a staggered format. Panels may be secretly nailed through the tongue at T&G joints. For optimum performance we recommend a minimum of 5 mechanical fixings per 22 x 2400 x 600mm board when fitted at 600mm centres.



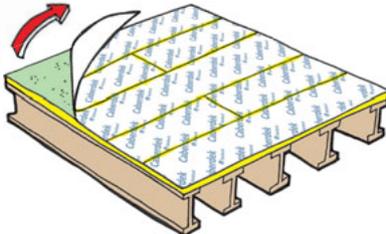
**Step 5. Complete sealing**

If installing Caberdek, any film that has peeled back from edges or T&G should be stuck back down using CaberfixD4 adhesive. For complete weather-tightness apply CaberfixD4 to exposed nail heads, cut edges and any exposed perimeter edges.



**Step 6. Clean down**

When all construction and decoration work is complete and the building is weather tight, the deck should be cleaned down: Remove the peel-off film by pulling slowly but firmly from the short end.



### Storage instructions

Protect from frost and moisture. Store in a cool (from +5°C to +25°C), dry place in original unopened packaging. Opened containers must be closed airtight and used up as soon as possible.

### Recommended usage

When using CaberfixD4 adhesive to bond the board to joist, and also the T&G joint, we recommend the following:

Board size	Boards per pack	Required bottles
18mm	80	15
22mm	66	12

### Features and benefits

- ✓ Safe working platform – slip resistant film and assists with fall protection
- ✓ Withstands high site traffic – impact, puncture and tear resistant film
- ✓ Film is easily removed – saves clean up costs and time
- ✓ All systems are fully BBA approved – can be exposed to the elements for up to 42 days.

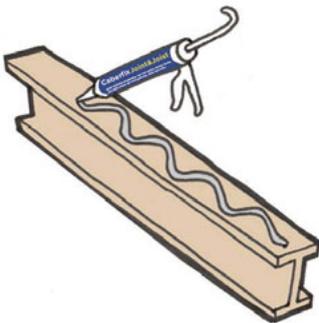


# Caberdek® and CaberfixPro®

## Step by step application guide

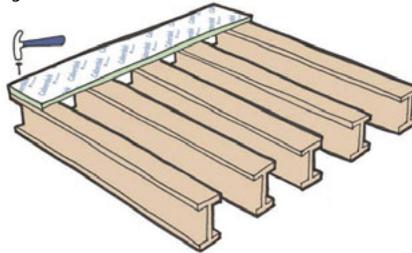
### Step 1. Adhesive I-joint application

Apply a 6mm bead of Caberfix Joint & Joist adhesive to the top of the joist or I-joist, using a skeleton gun. Use Caberfix Joint & Joist adhesive on joists and noggins in the area that is about to be directly laid.



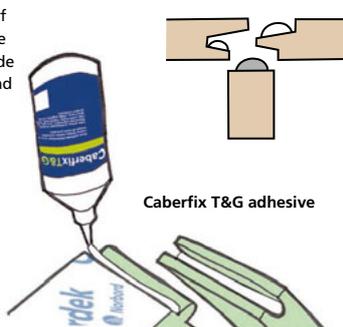
### Step 2. Perimeter panel fixing

Panels should be fixed at perimeter using annular ringshank nails or screws at 200-300mm centres. Fix flush or just below surface 25mm from edge of board.



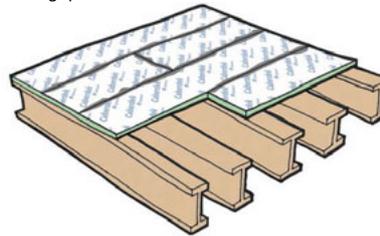
### Step 3. Adhesive tongue & groove application

A liberal application of Caberfix T&G Adhesive D3 PVA should be made to both the tongue and groove of the profile joint of each panel to ensure that the entire joint is bonded.



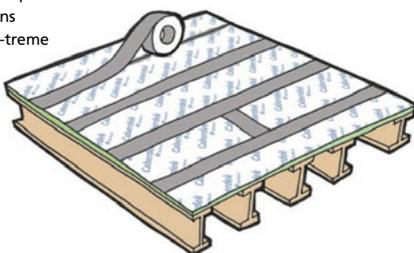
### Step 4. Panel fixing

Continue laying boards in a staggered format. Panels may be secretly nailed through the tongue at T&G joints. For 22mm Caberdek at 600mm centres only use 5 fixings per 2400mm panel.



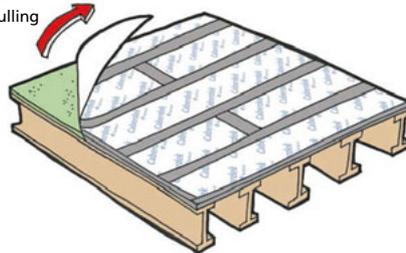
### Step 5. Taping

Immediately after a run of panels have been fixed, all board joints, nail runs and exposed edges around the perimeter should be sealed using Caberfix tape or in harsh conditions use Caberfix X-treme tape.



### Step 6. Clean down

When all construction and decoration work is complete and the building is weather tight, the deck should be cleaned down and peel-off film removed by pulling slowly but firmly from the short end.



## Also available from Norbord

**Caberfix X-treme** tape (a highly durable acrylic tape designed specifically for harsh winter conditions).

- ✓ Works in colder conditions than you can!
- ✓ Will work to minus 21 degrees
- ✓ Bonds even in damp conditions
- ✓ Scuff resistant so tape won't lift when walked over
- ✓ Will not crack or break in harsh conditions.

## Storage instructions

For best results tapes and adhesives should be stored between 5-25°C and should be protected from freezing. If working onsite in winter conditions we suggest storage of fixings in site office.



Scan QR code for video instructions

## Features and benefits

- ✓ Safe working platform – slip resistant film and assists with fall protection
- ✓ Withstands high site traffic – impact, puncture and tear resistant film
- ✓ Film is easily removed – saves clean up costs and time
- ✓ All systems are fully BBA approved – can be exposed to the elements for up to 42 days.





## Installation advice

### Caberfloor P5, Caberdek, Cabershield

#### Tongued & Grooved panels

Tongued & Grooved panels should be laid in a staggered pattern with long edges across the joists and short edges falling on the centre of joists. Support between joists is not necessary. Should the short edges overhang then the overhang must be supported by a noggin.

Glueing T&G edges is recommended. It improves joint strength and accommodates a degree of joist variation. All joints must be glued with Caberfix T&G D3 moisture resistant adhesive. Otherwise, joist movement or variation may lead to movement and 'creaks'.

Boards can be fixed by nailing or screwing. If nailing, annular ring shank nails should be used for fastening all edges to the joists.

If screw fixing, use a suitable pilot hole followed by posidrive No. 8 particleboard screws, or equivalent. Fix the boards with four fixings to each short edge joint, two about 25mm from each end and two equidistant in between. All joints must be tightly butted. Length of fixings used should be 2.5 times the thickness of the board. Four equidistant fixings should be used on panel ends and three at intermediate joists.

#### Square Edged panels

Square Edged panels should be laid with the long edges falling on the joist centres and with the short edges supported by 38mm wide noggins with their ends secured to joists.

Nail the boards to all supports 200-300mm apart with annular ring shank nails round the edges of the board and at 300mm centres on intermediate joists. The nails used should be 2.5 times the thickness of the board. All joints must be tightly butted.

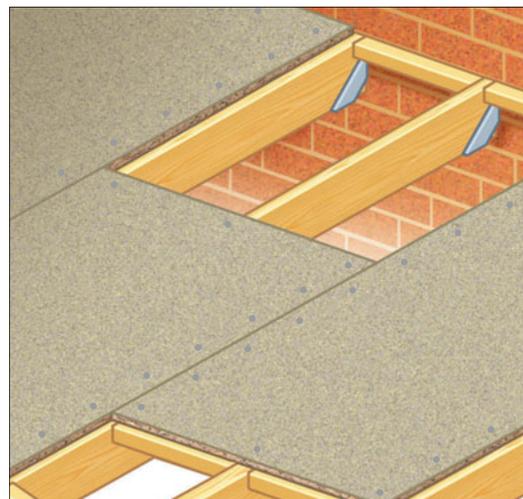
#### Note:

Care should be taken to ensure any joists treated with a waterborne preservative have thoroughly dried out before installation. Joist moisture content should not exceed 20%. High moisture content in the timber could lead to distortion as they dry out leading, to 'creaks', particularly if the boards are not glued. Some contractors prefer to additionally bond the underside of the board to the top of the joist (using PVA adhesive).

Any access traps for underfloor services should be pre-planned and support provided for all sides of the traps.



Tongued & Grooved panels



Square Edged panels

## Installation advice

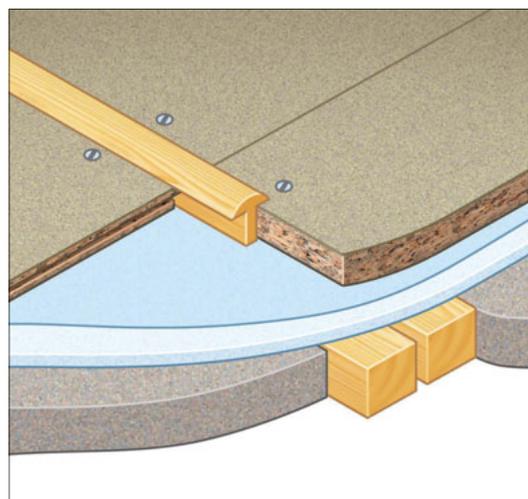
### Expansion gaps

#### Perimeter expansion gap

Caberfloor, when laid in a new building, will tend to absorb moisture and expand in common with other wood-based materials. It is important to leave an expansion gap of 2mm per metre run of board between the edge of the floor and the perimeter wall or any solid abutment (minimum gap 10mm). For larger areas it is necessary to incorporate intermediate expansion gaps to provide the necessary allowance for possible movements, particularly in corridor applications. Attention must be paid to maintaining expansion gaps at all times during construction.

#### Expansion/contraction provision

It is well documented and strongly recommended that additional movement gaps are incorporated in large areas or long runs e.g. corridors. BS 8201: Code of Practice for corridors recommends an expansion provision of 2mm per metre run plus 1mm for every metre above 12m of the width and breadth of the floor. A simple movement provision can be made according to the diagram below and also proprietary systems are available to suit a wide range of applications.



10mm minimum expansion gap

### Floor preparation

#### Soft and resilient floor coverings

The Codes of Practice – BS 8203, WPIF floating flooring installation code of practice and BS 5325 recommends that for all overlays the subfloor must be clean, rigid and flat. When thin or shiny floor surface materials are laid over Caberfloor these materials may allow board joints to show through, particularly after trafficking. Prior to laying such materials, the Caberfloor joints should be checked for level. It is permissible to sand off any raised areas not exceeding 1mm. For raised areas greater than 1mm, additional levelling materials are required. Thin plain coloured carpets or vinyls or those with a high sheen – tend to show small irregularities to a greater degree. For thin vinyls and tiling, it is recommended that a plywood overlay (4mm) is fixed in position, staggering joints so as not to coincide with Caberfloor joints. The plywood should be fixed every 100mm using appropriate nails or screws around perimeter and 150mm apart elsewhere, ensuring they do not protrude above the surface. Adhesive manufacturer advice should be followed for priming of new surfaces. Usually, this involves a coat of dilute PVA emulsion, e.g. Uni-bond.

#### Ceramic tiling

Guidance as to construction of bases in respect to considerations and timber bases is given in BS 5385: Part 3: 1989. Tiling onto Caberfloor should be undertaken only in joisted / fixed floor constructions. Noggins should be used between the joists at 300mm centres and the surface provided for tiling should be 15mm exterior grade plywood screwed to joists and noggins at 300mm centres. Existing boards can therefore be overlaid with 15mm exterior grade plywood to provide the necessary rigidity for a tiled surface. Length of fixings should be 2.5 times overall board thickness. A tile adhesive is the recommended bond material -cement/sand mortars are not recommended.

#### Underfloor heating

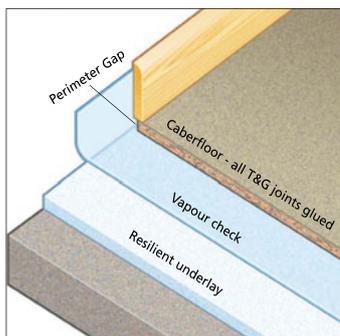
Caberfloor is suitable for use when installing hydronic underfloor heating systems.

## Floating and Suspended Timber Floors

### Continuously supported floating floor

It is essential that a continuous damp proof membrane – not less than 1000 gauge polythene – is used. This must be laid in accordance with CP102: 1973. A continuous layer of insulation is used above the structure of pre-cast concrete beam and block.

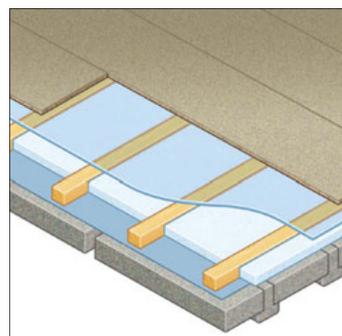
The insulation may be incorporated in the screed. Most commonly, when used in conjunction with Caberfloor P5 as the floating floor overlay, the insulation is immediately below the flooring and laid onto the slab or beam and block, with vapour control layer between flooring and insulation. Any unevenness, localised or general, may transmit through the Caberfloor layer, therefore subfloor flatness is important. The insulation material should be rigid and suitable for the loading requirements.



Continuously supported floating floors

### Battened floating floors

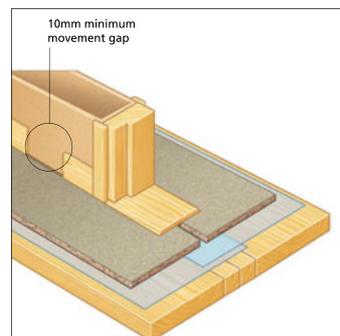
Use additional support battens where extra floor loading is anticipated and the exact position is known, e.g. beneath kitchen equipment and sanitary fittings. When required, use a levelling screed to ensure that the battens of a timber battened system are true and level. Do not attempt to fix the flooring to the battens through resilient insulation material, as this will create an uneven floor. If necessary lightly sand and clean floors to make the surface suitable for further overlays, e.g. thin plywood, vinyl etc. Do not wash or scrub with water.



Caberfloor on battened floating floor

### Advice on door thresholds

At all door openings, support the edges of the panels on preservative treated timber battens. Ensure that battens are on a firm and level base and fix a strip of flooring to the battens as a threshold. Allow a gap on each side of the threshold for movement in the flooring panels.



Doorway thresholds

### Acoustic performance

Caberfloor P5 can be used effectively on acoustic battened floor systems.

These systems are often used in flatted developments to achieve 'Part E' requirements of UK Building Regulations.

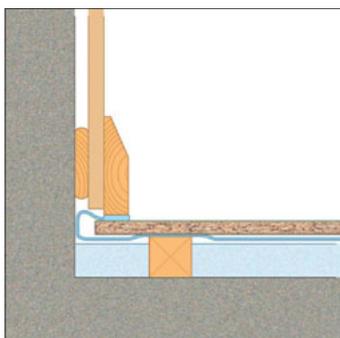
### Advice on Moisture Protection

Caberfloor P5 is a highly durable product. Similar to other wood-based panels it is affected by moisture. Good practice on installation and protection against moisture in construction is advised. We recommend, with or without battens in the floating floor construction, that 1000 gauge polythene should be used as a continuous Vapour Control Layer (VCL) between the Caberfloor and the insulation material.

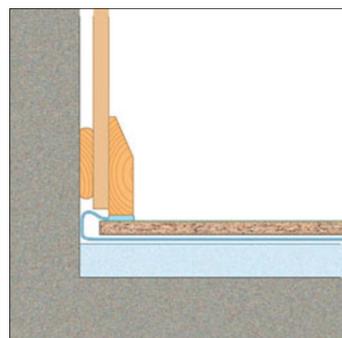
### Joisted/Suspended Timber Floors

Joisted or suspended timber floors have an advantage in that they can accommodate the required thickness of insulation within the structure. The insulation materials may be mineral wool supported on boards (or netting) or rigid foam insulation simply supported on timber battens.

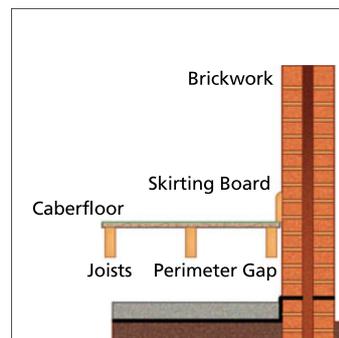
The board may be mechanically fixed to the joists and the underside of the board glued to the top of the joist for additional strength. Independent tests have shown a 10% strength increase by glueing as above. Maintain adequate cross ventilation of the subfloor space, taking care not to obstruct ventilators by insulation material or timber struts in the subfloor. Use herringbone struts in preference to solid strutting e.g. above sleeper walls.



Vapour control layer with battened floor



Vapour control layer with Caberfloor



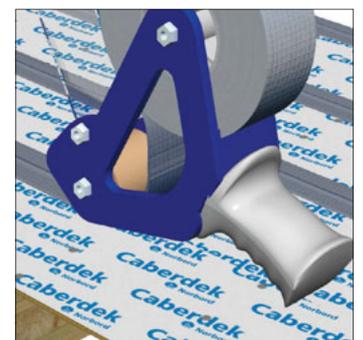
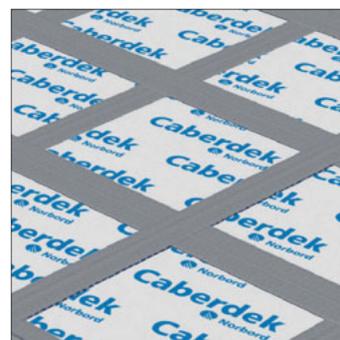
Joisted floor

## Technical data

### Caberfloor, Caberdek, Cabershield

	Unit	Caberfloor P5, Caberdek, Cabershield	
		18mm	22mm
Panel Weight	kg/m <sup>2</sup>	12	15
Panel Weight (2400x600mm)	kg	17.3	21.6
Density	kg/m <sup>3</sup>	660 ± 30	660 ± 30
Internal Bond (IB)	MPa	0.45	0.40
Modulus of Rupture (MoR)	MPa	16	14
Modulus of Elasticity (MoE)	MPa	2400	2150
Moisture Content	%	5-8	5-8
Thickness Swelling (24hr)	%	10	10
After Cyclic Test (swell)	%	12	11
V313 Internal bond	MPa	0.22	0.2
Standard Deviation of Thickness			
within boards	mm	±0.2	±0.2
between boards	mm	±0.5	±0.5
Dimensional Stability			
Length/Width	%	0.25	0.25
Thickness	%	7.0	7.0
Thermal conductivity 'K' value	W/m.K	0.14	0.14
Low Emission Grade E1 (Formaldehyde EN120)	mg/100g	≤8.0	≤8.0
Reaction to fire (EN 13501-1)		Class D	Class D

These values are typical mean and percentile values when the products are tested in accordance with European Standards test methods for Particle Boards BS EN 312.

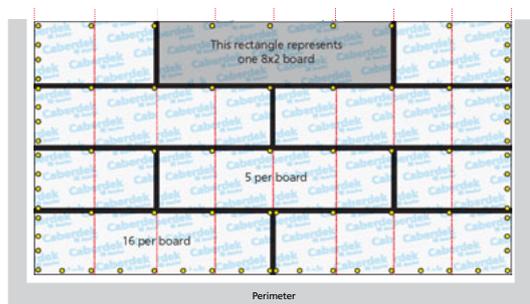


### Additional Technical Data for Caberdek removable film

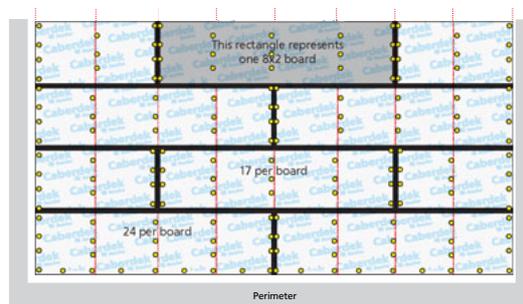
	Test method	Unit	Value
Weight of Film		g/m <sup>2</sup>	90
Impact	VLT107	Nm	6.5
Tear Resistance / Puncture			
Propagation Tear	ASTM 02582	N	80
Ultimate Tensile Load	DIN 53455	kN/m	5.5
Elongation	DIN 53455	%	450
Temperature Extremes			-40/+80
Water Vapour Transmission	Lissy	g/m <sup>2</sup> /24hrs	0.7

### Boards Per Pack

Thickness (mm)	Tongued & Grooved Caberfloor P5 and Caberdek		Square Edged Caberfloor P5		
	2400 x 600mm 2440 x 600mm		3050 x 1220mm		
18	80		50	42	28
22	66		33	-	-



Glued method



Screwed method



## Environmental credentials

### Forest Stewardship Council®

Norbord is committed to sourcing all of its timber from responsibly managed forests and therefore all of our European manufactured particleboard products are certified to Forest Stewardship Council® standards.

The FSC® product label allows consumers worldwide to recognise products that support the growth of responsible forest management. In an increasingly environmentally aware marketplace many demand the FSC® mark on their wood products: with Norbord it comes as standard.

At Norbord, all of our facilities are regularly visited by a team of environmental auditors, so there is always something better to strive for and a new standard to set. This combines with our open approach to business. Norbord is a name you can trust to deliver, and to keep its promises.



The mark of responsible forestry

### Investing in the environment

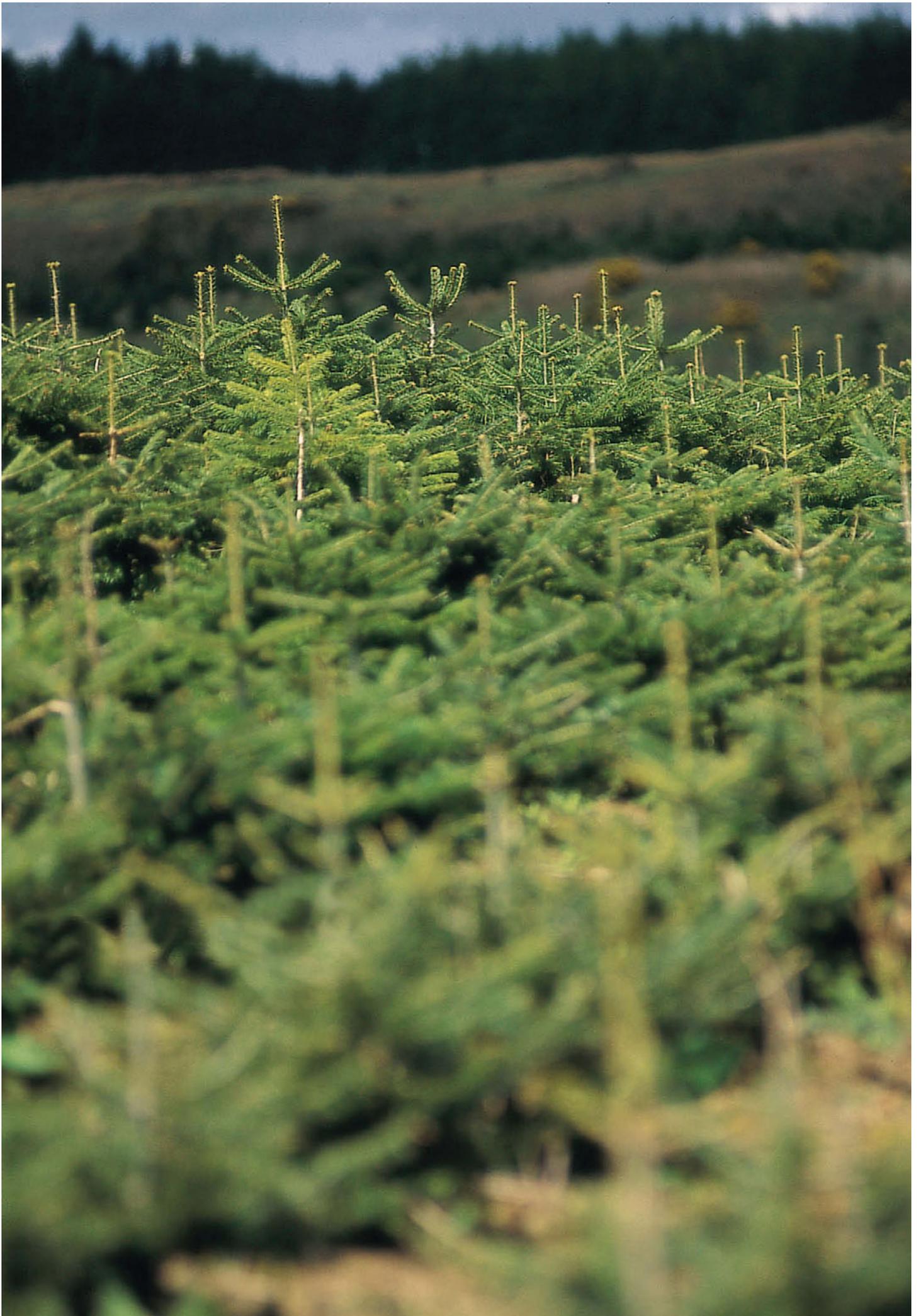
Norbord has invested heavily in environmental improvements since 1995. This includes air-cleaning technology such as state-of-the-art WESPs (wet electrostatic precipitators). It also means investment in recycling facilities. We can generate as much as half our mill's energy needs by using wood residues as fuel – composting what is left.

By reusing and conserving, we safeguard the environment and keep our costs down. In turn, our products are good for the environment and also good for your budget.

All of our plants have obtained the coveted environmental ISO 14001 accreditation. The ISO 14000 family addresses environmental management. This means what the organisation does to:

- minimise harmful effects on the environment caused by its activities, and to
- achieve continual improvement of its environmental performance.





## Norbord across the globe

### Norbord across the globe

Norbord is one of the world's leading manufacturers of engineered wood-based panels. With our headquarters in Toronto, we employ some 2,500 people worldwide with approximately 900 of them in Europe. We are publicly owned and listed on the Toronto Stock Exchange.

### Our facilities include

- 11 OSB Mills
- 1 MDF Plant
- 2 Particleboard Plants
- 1 Furniture Plant

The result is a successful company built on integrity, listening to our customers and always improving the way we work.

### Industry sectors served

Our products are used extensively in the construction, furniture and DIY sectors. From tongued & grooved Caberfloor ideal for flooring solutions, to structural SterlingOSB designed to withstand the rigours of I-joists, all our products are manufactured to vigorous quality standards.



Corporate Office ■

OSB Mills ■

Particleboard Plants ■

MDF Plant ■

Furniture Plant ■

## Norbord in Europe and quality credentials

### In Europe, we have four sites

#### • Cowie, Scotland

Tel +44 (0)1786 812921  
Fax +44 (0)1786 815622  
Caberwood MDF  
Caberboard  
Caberfloor  
Caberdek

#### • Inverness, Scotland

Tel: +44 (0)1463 792424  
Fax: +44 (0)1463 791764  
SterlingOSB2  
SterlingOSB3  
Sterling Roofdek

#### • South Molton, England

Tel: +44 (0)1769 572991  
Fax: +44 (0)1769 572413  
Conti  
Caberboard  
Furniture Components

#### • Genk, Belgium

Tel: +32 (0)89 500300  
Fax: +32 (0)89 362971  
SterlingOSB Zero

### British Board of Agrément

The BBA (British Board of Agrément) is designated by UK Government to issue European Technical Approvals. This provides third party security and further guarantee of SterlingOSB performance in modern construction applications. A copy of the certificate can be found at [www.norbord.co.uk](http://www.norbord.co.uk)



### CE Marking

The CE mark (from the French, 'Conformité Européen') is intended to promote the free movement of products within the EU by showing that essential health and safety requirements have been met.

The CPD (Construction Products Directive) applies standards to the finished works into which construction products are to be used, rather than applying directly to the products themselves. These quality standards ensure that:

- the product has been subject to an appropriate system of attestation of conformity with one or more technical specifications;
- the product does in fact conform with the relevant aspects of the identified technical specifications; and
- the product is fit for its express intended use or with its implied range of suitable uses.



Cowie Scotland



Inverness Scotland



South Molton England



Genk Belgium



## Values and beliefs

The people of Norbord Europe have adopted a common set of values which have been built through open communication and dialogue reflective of mutual respect. They can be summarised in three words:



### Commitment to helping our customers be successful

Our people recognise that if our customer relationships are not based on win-win outcomes, then they are not sustainable.

This belief drives our strategy of focusing on key customers and working with them to ensure mutual benefits over the long term. Benefits based on continuing improvements in customer service, product and business development, supply chain effectiveness and technical support.

The only valid gauge of our success in this commitment, is whether our customers believe and say we're doing it.

### Trust and personal responsibility in all relationships

We believe that each of our people has the capability and commitment to maximise his/her contribution and the desire to take responsibility for their actions.

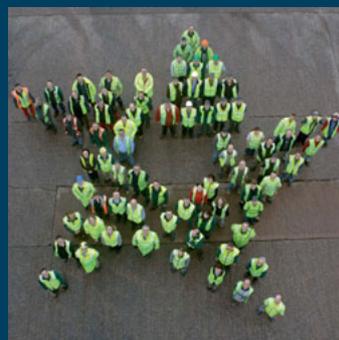
Our collective goal is to set clear objectives and to deliver on all promises and commitments. This philosophy applies whether we're engaged with customers, suppliers, fellow members of Norbord, shareholders, or with the community at large.

### Excellence as our standard

Our goal is to have an organisation which is capable of excellence and of delivering it consistently in the areas critical to our business.

These include the following:

- Safety
- Managing beyond customer expectations
- Supply chain management
- Cost management
- Capacity assurance
- Organisational effectiveness.



## Customer support

### Logistics

At Norbord, we run our own specialist logistics service. A service known for its reliability; a service that guarantees availability.

Available to selected accounts, our unique Fastrack guarantee goes even further.

#### How Fastrack can work for you:

- Assured supply
- Direct delivery to your customers
- One order point for all products
- Improved stock turnover.

Our range of logistical options adds up to on time and in full delivery.

### Technical support

At Norbord, our experienced technical team is on hand to deal with enquiries from architects, builders, contractors – in fact anyone involved in the specification or use of Norbord's engineered wood-based panels.

Rest assured – our commitment will continue throughout your project and beyond.

#### MSDS

Material Safety Data-Sheets are available for all Norbord products. Please contact Norbord Technical Support or visit [www.norbord.co.uk](http://www.norbord.co.uk)

### Training

For many years Norbord's technical sales personnel have been providing training aimed at improving the knowledge and skills of:

- Construction professionals
- Specifiers
- Merchant and distribution staff
- Technical support staff
- Sales personnel.





**Norbord®**

**make it better**

 **Caberboard®**

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For more information  
on Caberboard  
scan here



At Norbord, we realise the environment is fundamental to our future. This brochure has been printed on paper stock that is FSC (Forest Stewardship Council) certified.