

**MORE FROM WOOD.**



**Building Solutions**

**Chipboard, OSB, Timber & Adhesive.**





# EGGER.

## A brand that stands for quality, but never stands still.

For over 50 years the name EGGER has been synonymous throughout the construction industry with standards of production that lead the way in wood based panels manufacturing. All our construction products are verified and independently tested by a third party test institute. We are both ISO 9001 certified, which highlights our commitment to quality and ISO 14001 certified, which highlights our environmental commitment as an organisation.

Across our 17 state-of-the-art European manufacturing facilities we are constantly developing new products that help builders to work faster and to higher levels of finish. And here in the UK we've created a portfolio of flooring products that is one of the best available.

Your brochure also includes everything you need to know about fitting our ground-breaking new EGGER Advanced Structural Flooring System and the unique Advanced Lifetime Guarantee that this provides.

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# 1

## EGGER for residential projects

Our EGGER Advanced range offers you a wide selection of outstanding tongue-and-groove chipboard and associated products that have been created for use in a wide variety of residential applications and conditions.

As well as providing you with the very highest quality, the EGGER Advanced range also gives you a choice of finishes and levels of protection that ensure you will always have precisely the product you need, whatever project you are undertaking.





## THE EGGER ADVANCED STRUCTURAL FLOORING SYSTEM

INTRODUCING A REVOLUTION IN STRUCTURAL FLOORING.

EGGER has always been known for leading the way, for being innovative and pioneering. It is a reputation of which we are rightly and justifiably proud. And today we are enhancing that reputation with the launch of a flooring system that offers exceptional peace of mind.

Its name is the EGGER Advanced Structural Flooring System, and at its heart is a portfolio of boards and adhesive, together with a method for fitting them, that when combined offer you the most reliable and best method of installing a floor ever.

### Backed by a groundbreaking lifetime guarantee

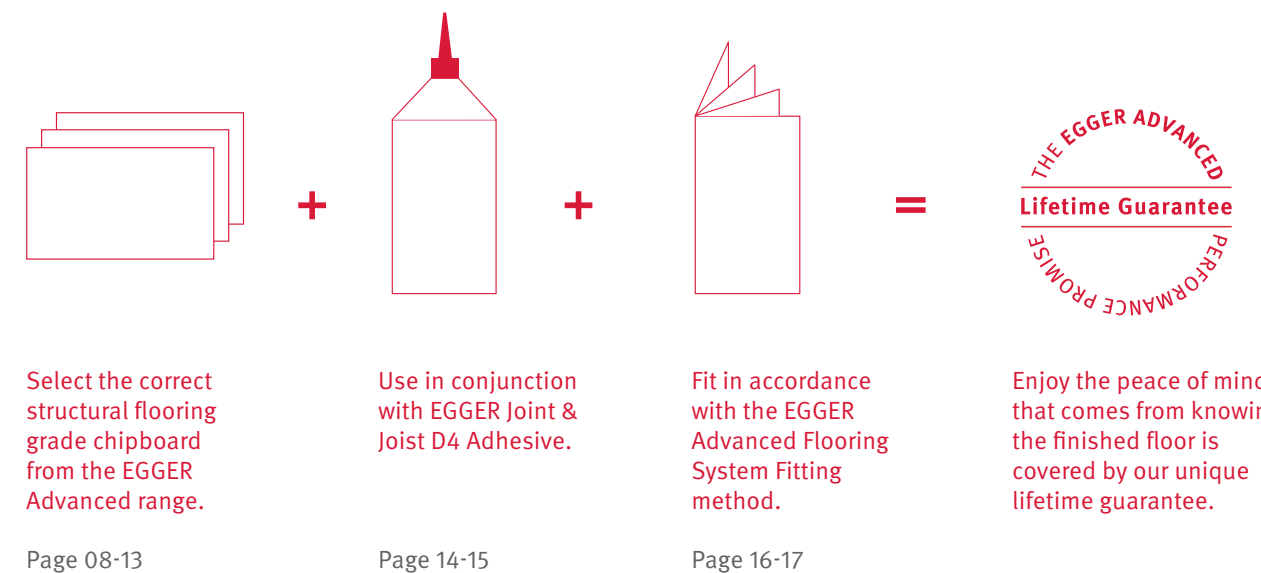
Perhaps the most remarkable aspect of the EGGER Advanced Structural Flooring System is its landmark lifetime guarantee – a guarantee which gives you total confidence in every floor you lay.

This is what makes the EGGER Advanced Structural Flooring System so different, so unique and the indisputable first choice for anyone who wants peace of mind in their work.

### You're in safe hands

The EGGER name is, of course, synonymous with quality. So when you use the EGGER Advanced Structural Flooring System you know that every board has been manufactured on one of the most sophisticated production lines not only in the U.K. but in Europe. You can also be sure that the entire system is backed by outstanding technical support and marketing. This includes access to a dedicated and highly knowledgeable team of sales experts who are available to offer assistance whenever you need it.

### The EGGER Advanced Lifetime Guarantee in three easy steps



For terms and conditions and further information on the EGGER Advanced Lifetime Guarantee please visit [www.egger.com/lifetime](http://www.egger.com/lifetime)



# EGGER P5

THE BACKBONE OF OUR RANGE OF FLOORING PRODUCTS FOR RESIDENTIAL APPLICATIONS IS THE EGGER P5 GRADE (ENHANCED MOISTURE RESISTANT) CHIPBOARD.



P5 tongue-and-groove flooring is specified by the NHBC for new-build applications and is ideal in dry conditions for domestic flooring, renovations and refurbishment projects. EGGER P5 is also suitable for **use in damp or humid environments**, such as bathrooms and kitchens, where it provides excellent protection.

Every board is **machine-profiled** with **diamond-tipped** tooling to achieve a precision tongue-and-groove profile ensuring a tighter, more consistent board joint. EGGER P5 is manufactured to the specification of EN312, is regularly audited independently and is FSC® chain-of-custody certified.

EGGER P5 forms the basis for the following upgraded products:

- EGGER Peel Clean Xtra
- EGGER Protect

When used as part of the EGGER Advanced Structural Flooring System, EGGER P5 is covered by our **EGGER Advanced Lifetime Guarantee** (page 6-7).

## AT A GLANCE BENEFITS

- Enhanced moisture resistant board.
- The only board manufactured in the UK using diamond-tipped tooling to create a precision tongue-and-groove profile.
- Profiled on all four sides for quick and easy installation.
- Specified by the NHBC for new-build applications in dry conditions.
- All raw materials sourced locally to minimise transport emissions.
- Closed surface for smoother boards and enhanced surface finishes.
- CE and FSC certified.



**Want to know more?**  
Scan the QR code for to watch our fitting videos.



» WE HAVE ALWAYS USED EGGER P5 AS NOT ONLY DO WE BELIEVE IT IS THE BEST CHIPBOARD FLOORING AVAILABLE, BUT IT ALSO MEETS OUR CRITERIA FOR BEING AHEAD OF THE GAME AS FAR AS THE ENVIRONMENT IS CONCERNED. WE APPRECIATE THE BACK UP TEAM HAVE HOLISTIC KNOWLEDGE OF THEIR PRODUCTS AND COMPANY RATHER THAN JUST BEING COST DRIVEN. «

Terrie Harvey, Chief Buyer, Cruden Building & Renewals Ltd



## EGGER PEEL CLEAN XTRA

WHEN SURFACE PROTECTION FROM SITE TRAFFIC AND WET TRADES IS NEEDED DURING CONSTRUCTION, EGGER PEEL CLEAN XTRA PROVIDES AN INVALUABLE SOLUTION.



Made from EGGER P5 grade chipboard, this robust product is covered with an **easy-to-peel, anti slip** polyethylene film which helps to prevent moisture ingress during the build process.

When the film is removed at the end of the building process it leaves a polymer sealed surface on top of the board providing a clean and **well presented floor** with an added moisture barrier upon completion.

All of which makes EGGER Peel Clean Xtra ideal for refurbishment, renovation and new build projects, as well as modular and timber frame construction.

When used as part of the EGGER Advanced Structural Flooring System, EGGER Peel Clean Xtra is covered by our **EGGER Advanced Lifetime Guarantee** (page 6-7).

For board sizes and pack quantities please see page 21.

### AT A GLANCE BENEFITS

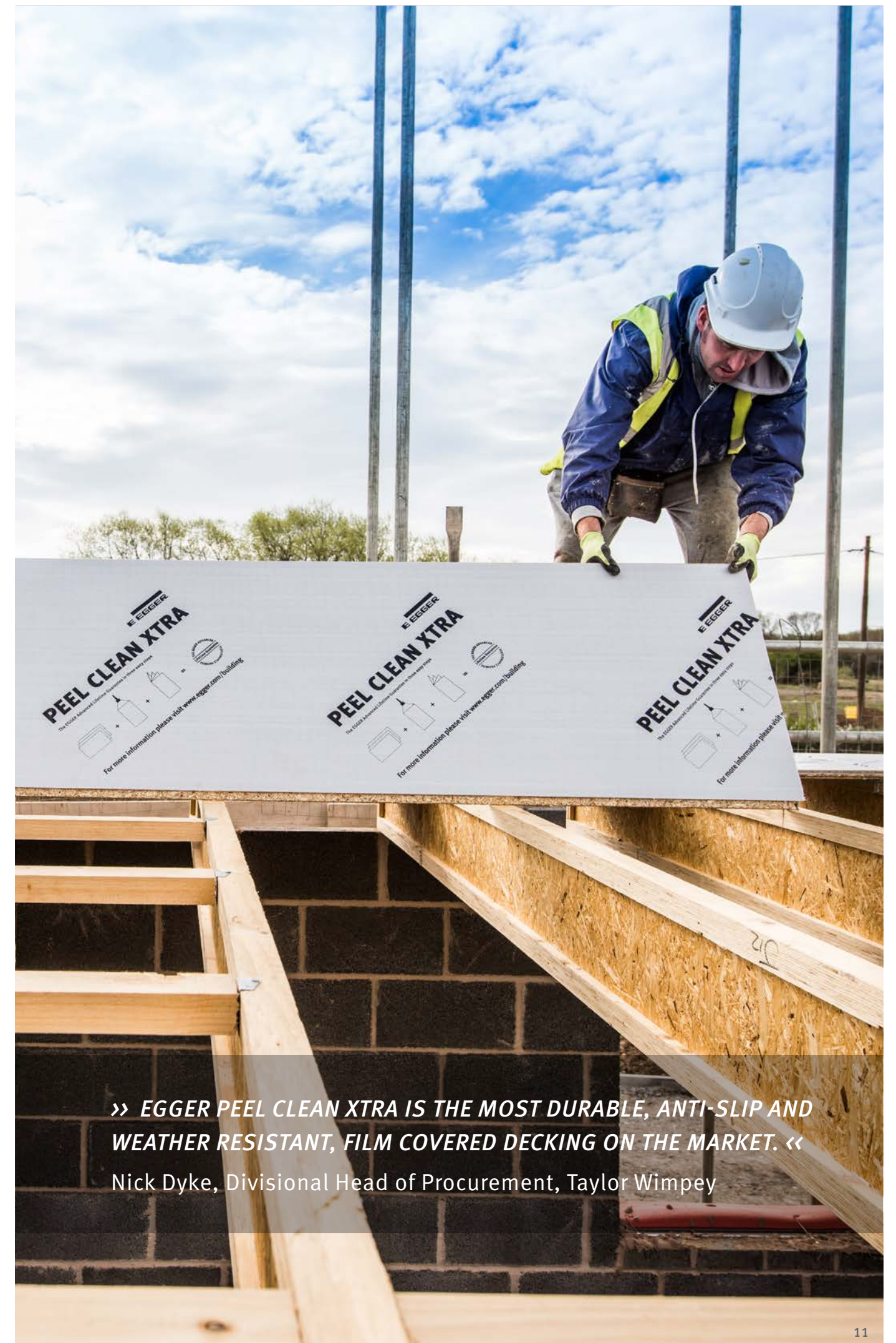


All of the benefits of EGGER P5 plus...

- New easy-to-peel-off film reveals a floor left clean and well-presented prior to handover.
- Consistent peel-off film leaves a polymer finish on top of the board surface which provides an added moisture barrier upon completion.
- Can be installed in light rain conditions resulting in fewer stoppages on site.
- Once correctly laid can be left exposed to the elements for up to 42 days during the build process.
- Tighter edges on the film to prevent edges curling and lifting.
- Anti-slip surface on film provides additional foot holding in wet conditions.



**Want to know more?**  
Scan the QR code for to watch our fitting videos.



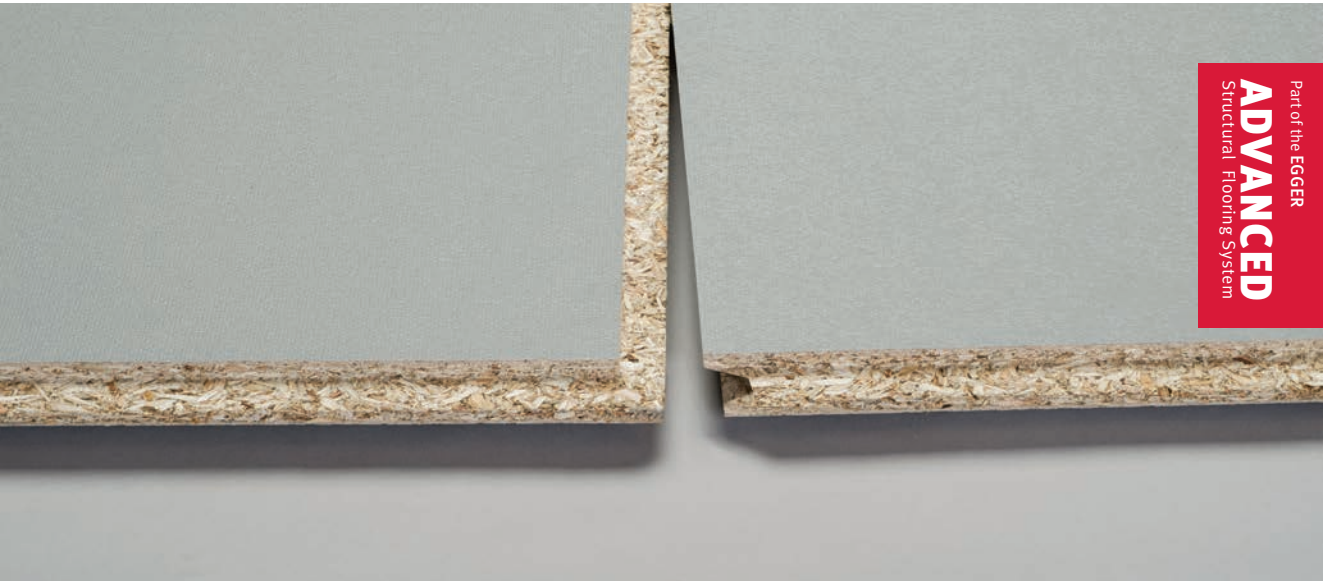
» EGGER PEEL CLEAN XTRA IS THE MOST DURABLE, ANTI-SLIP AND WEATHER RESISTANT, FILM COVERED DECKING ON THE MARKET. «

Nick Dyke, Divisional Head of Procurement, Taylor Wimpey



# EGGER PROTECT

EGGER PROTECT IS A TRUE MARKET-LEADING PRODUCT THAT OFFERS PERMANENT DUAL SURFACE PROTECTION ON SITE FOR UP TO 60 DAYS.



EGGER Protect is manufactured from an EGGER P5 flooring grade chipboard with a unique, weather resistant surface layer. This surface is applied to both the top and underside of the board, which results in a product that offers protection from moisture penetration.

In fact EGGER Protect has a hard-wearing **anti-slip surface** that can help to provide additional foot holding on site in both wet and dry conditions, which not only contributes significantly to site safety but also makes this an essential safe working platform for use in house building construction. EGGER Protect can be **left exposed to the elements for up to 60 days** during the building process and can even be laid during light rain conditions, thereby minimising weather related stoppages and enabling faster completions.

When glued with EGGER Joint & Joist D4 Adhesive it provides a **fully sealed working deck** that requires no joint sealing tape and that protects against site spoil, impact, the wear and tear of heavy site traffic and moisture. Its concrete-effect finish also requires no painting once work has been completed.

Furthermore, EGGER Protect is **ideal for use with under-floor heating** as it is less likely to be affected by moisture changes that are known to be accelerated by this type of heating. It can also be tiled onto directly using a flexible tiling adhesive.

AT A GLANCE BENEFITS

All of the benefits of EGGER P5 plus...

- Can be installed in light rain conditions resulting in fewer stoppages on site.
- Fully sealed surface protects against water and moisture ingress on both sides of the board for up to 60 days in exposed conditions.
- Protects against the wear and tear of site traffic.
- Ideal for use with under-floor heating.
- The only board type we recommend tiling directly onto.
- The unique anti-slip surface contributes to site safety.
- No joint sealing tape required.

When used as part of the EGGER Advanced Structural Flooring System, EGGER Protect is covered by our **EGGER Advanced Lifetime Guarantee** (page 6-7).

For board sizes and pack quantities please see page 21.



Want to know more?  
Scan the QR code for  
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videos.



» AS A LEADING NATIONAL HOUSE BUILDER, WE FIND EGGER PROTECT TO BE A COST-EFFECTIVE DECKING PRODUCT AND COMPLIES WITH OUR HEALTH AND SAFETY STANDARDS. «  
Ian Cryer, Group Purchasing Manager, Bellway Homes.



# EGGER JOINT & JOIST D4 ADHESIVE

A VITAL COMPONENT OF THE EGGER ADVANCED STRUCTURAL FLOORING SYSTEM IS OUR NEW EGGER JOINT & JOIST D4 ADHESIVE.



When used with EGGER T&G structural flooring boards, following the EGGER Advanced Structural Flooring System Fitting Method will provide the EGGER Advanced Lifetime Guarantee for every floor you fit.

As well as being up to **5 times stronger** than a mechanical fixing this new product also offers the added benefit of having a unique foaming action ideal for gap filling on uneven surfaces and joists.

However the advantages of using EGGER Joint & Joist D4 Adhesive don't end there.

Thanks to its state-of-the-art formula, EGGER Joint & Joist D4 Adhesive flows out of the bottle quicker to **save time and money** on site with a new top for a faster, more targeted and consistent application.

Recommended coverage of EGGER Joint & Joist D4 Adhesive for bonding the chipboard to joist and within the tongue and groove of the board joint: Minimum 1 bottle per 6 boards.

AT A GLANCE BENEFITS

- Helps to eliminate squeaks associated with fully nailed floors.
- A strong adhesive that is up to 5 times stronger than a nailed fixing with no need for secret nailing, fully compliant with BS EN 204/D4.
- EGGER Joint & Joist D4 Adhesive can help to meet 43dB sound test requirements for England, Wales and Scotland when used as part of the Advanced Structural Flooring System.
- Foams out of the board joint to make a seal on top of the board, ideal for gap filling on uneven surfaces and joists and doesn't allow moisture ingress or stepping of joints.
- No expensive tools, applicator guns or joint sealing tapes required, seal joints using EGGER Joint & Joist D4 Adhesive.



Want to know more?  
Scan the QR code for  
to watch our fitting  
videos.



» WE HAVE FOUND EGGER'S JOINT & JOIST D4 ADHESIVE TO HAVE MANY BENEFITS FOR BOTH OFF AND ON SITE APPLICATIONS. «

Steven Earle, Managing Director, CCG (OSM) Ltd



# EGGER ADVANCED STRUCTURAL FLOORING SYSTEM FITTING METHOD



We are so confident in the quality and performance of our boards, adhesive and fitting method, that when all 3 are used in combination together we can provide customers with a unique lifetime guarantee (see page 7 for details).

The EGGER Advanced Structural Flooring System offers a wide range of benefits;

### Faster installations with fewer stoppages

- A quick, straight forward system that's easy to use with less room for errors or mistakes.
- Floors can be installed even in light rain conditions and left exposed to the elements for up to 60 days if using EGGER Protect, and up to 42 days if using EGGER Peel Clean Xtra. (Please note EGGER P5 is for use in dry conditions only).
- Only the first row of boards needs to be nailed.

### Save costs

- No need to use Joint sealing tapes to cover board joints.
- No requirement for expensive tools or applicator guns.
- Speeds up fitting on site as the Advanced Structural Flooring system does not include secret nailing.

### Fewer call backs and issues after handover

- Developed to vastly reduce squeaks associated with fully nailed floors.
- Comes with a lifetime guarantee when applied correctly using EGGER Structural Flooring Boards and Joint & Joist D4 Adhesive.

### Stronger, better floors

- New EGGER Joint & Joist D4 Adhesive is up to 5 x stronger than a nailed fixing.
- Manufactured using diamond tipped tooling to ensure tight, highly consistent tongue & groove joints.

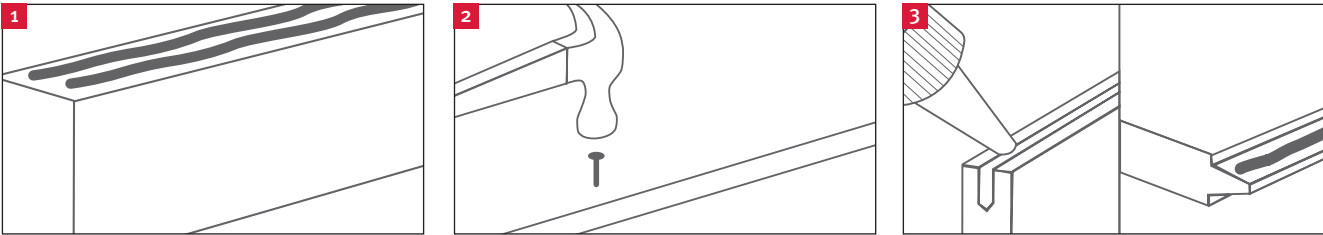
### Safer construction sites

- Slip resistant surfaces\* can help to improve the Health & Safety for those working on site.
- No need for secret nailing, resulting in safer installations.

\*EGGER Protect & EGGER Peel Clean Xtra



Suitable for use with Solid Timber Joists and Engineered Joists, it is advisable to follow joist manufacturers recommendations in conjunction with fitting EGGER T&G boards.

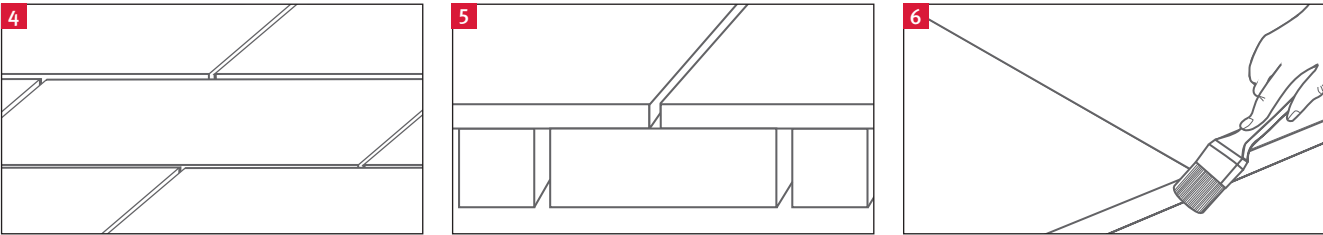


1 Apply two parallel beads of EGGER Joint & Joist D4 Adhesive to the top of the joist along the first row of boards.

2 Lay the boards across the joist and fix the first row of boards with only one nail per joist from the board edge using an annular ring shank nail 2.5 times the board thickness.

Please ensure that all exposed fitting heads are sealed with EGGER Joint and Joist D4 Adhesive to prevent potential moisture ingress.

3 Apply EGGER Joint & Joist D4 Adhesive directly to the groove and shoulder of the profile joint, continuing down the length of each board to ensure that the entire joint is bonded once the boards are butted tightly together. Adhesive should foam out of the board joint - this will enhance the protection of the joint. Excess adhesive should be left to dry.



4 Apply EGGER Joint & Joist D4 Adhesive along the next row of joists and stagger the next row of panels by approximately half a board to form a brick bond laying pattern. Repeat steps (excluding step 2) and note that care should be taken when walking on newly laid boards.

5 All short end joints should always fall on the centre of a secured joist including perimeter edges. Where this is not the case refer to NHBC guidelines.

6 Seal any exposed nail heads perimeter edges, cut edges and stairwells using EGGER Joint & Joist D4 Adhesive.

Once the building is watertight excess adhesive can be removed with a scraper.



**Want to know more?**  
Scan the QR code for to watch our fitting videos.



# EGGER STRUCTURAL FLOORING DESIGN CONSIDERATIONS

Applications Table

Applications	EGGER Protect	EGGER Peel Clean Xtra	EGGER P5
For use with timber I-joists	●	●	●
For use with solid wood joists	●	●	●
For use with metal web joists	●	●	●
May be used externally (60 days exposure)	●	-	-
May be used externally (42 days exposure)	●	●	-
May be used with underfloor heating	● (recommended)	●	●
May be tiled directly onto	●	-	-
Anti-slip surface	●	●	-
Oak effect surface finish	-	-	-
Part of the Advanced Structural Flooring System	●	●	●
Covered by Advanced Lifetime Guarantee*	●	●	●
Suitable for use in new build timber frame applications	●	●	●
Suitable for use in refurbishment/ retrofit projects	●	●	●
Suitable for use in ground floor floating floor applications	●	●	●
Suitable for use in upper floor construction	●	●	●
Suitable for use in masonry builds	●	●	●

\* See pages 6-7

Joists

Joists should be correctly spaced so the short end of the board joint falls on the centre of a joist. When laying tongue and groove flooring boards, begin by laying the longest edge at right angles to the joists, short ends should be staggered by approximately half a board in a brick bond fashion.

Joist spans

Joist centres/spans equate to the measurement from the centre of one joist to the other. A clear span equates to the measurement from the inside edges of the joists (nearest edge from each joist).

Board Thickness	Max. Span
18 mm	450 mm
22 mm	600 mm

Expansion Gaps

Laying starts with a single row of boards parallel to the longest wall, allowing for a suitably sized expansion gap of 10 mm or 2 mm per metre run of floor (whichever is greater) against all walls and abutments. Particular attention must be paid to maintaining expansion gaps at all times during construction. For floors which are in excess of 10 m long (e.g. corridors), intermediate movement gaps (minimum 10 mm) should be incorporated and finished with a compressible filler or proprietary movement joint cover.

Nails & Screws (used in first row)

Boards should be fixed using corrosion resistant nails or screws. Corrosion resistant materials include galvanised or sheradised steel, phosphor bronze and silicon bronze. Screws and flat headed improved nails (e.g. annular grooved or rink shank) have superior holding power and should be used in preference to plain shank nails.

Screws should be countersunk, self-drilling and self tapping types. Nails should be punched and screws should be countersunk by 2 mm to 3 mm below the surface.

Minimum nail/screw length and diameter should be as follows:

Board Thickness	Nail/Screw Length	Nail/Screw Diameter
18 mm	50 mm (2.5 x panel thickness)	2.8 mm (0.16 x panel thickness)
22 mm	55 mm (2.5 x panel thickness)	3.5 mm (0.16 x panel thickness)

Underfloor service ducts

Where access to any pipes or services is required through removable traps, they should be supported on all four edges and fixed using 50 mm x 8 gauge countersunk wood screws in pre-drilled holes.

Service ducts should be constructed so that the cover can be set level with the adjacent floor finish provided by the builder.

Drying shrinkage of the floor may result in minor differences in level between the floor and duct cover. This may become evident with some types of thin floor coverings, and the choice of covering should take this into account.



# EGGER STRUCTURAL FLOORING

## DESIGN CONSIDERATIONS

### Flooring repair

In instances where flooring has been exposed to the elements for longer than our recommended exposure time, or during periods of particularly heavy rainfall, joint swelling may be experienced in some situations. The structural properties of the board will not usually be compromised, however it may be prudent to seek structural advice from a surveyor.

Where your flooring has experienced some swelling, but is now no longer exposed to the elements (i.e. the building is watertight), it may be possible to sand the affected areas using a belt sander, removing 1-2 mm maximum from the surface of the board so as to level the flooring once again. Should sanding of EGGER Protect boards be required, we can recommend a paint to be used which will match the grey colour of the protective surface.

### Sound insulation

In addition to the chipboard, a suspended timber floor also consists of floor joists, plasterboard and normally insulation. All these components contribute to the acoustic performance of the floor.

National building regulations give the following performance levels for internal floors:

- England & Wales: 40 dB Rw
- Scotland: 43 dB Rw

UKAS accredited 3rd party tests have shown that EGGER products can contribute to meeting these requirements. More information is available on request.

### Board dimensions and pack sizes

Thickness	Dimensions	Boards per pack	Pack weight
18 mm	2400 × 600 mm	80	1.5 tonnes
22 mm	2400 × 600 mm	64	1.5 tonnes

### Certification

All EGGER P5 grade flooring boards are manufactured to the specification of EN 312 and meet the requirement for CE marking as detailed in EN 13986.

### Physical properties requirements

All EGGER P5 grade flooring boards meet and often exceed these standards.

Property	Test method/standard	Unit	Requirement	
			18 mm	22 mm
Bending strength	EN310	N/mm <sup>2</sup>	16	14
Modulus of Elasticity	EN310	N/mm <sup>2</sup>	2400	2150
Internal bond	EN319	N/mm <sup>2</sup>	0.45	0.4
Thickness swelling 24h	EN317	%	10	10
Internal bond after cyclic test	EN321	N/mm <sup>2</sup>	0.22	0.2
Thickness swelling after cyclic test	EN321	%	12	11
Reaction to fire category	EN 13986	-	DFL-s1 (for flooring) D,s2, d0 (non flooring applications)	
Slip resistance	-	-	37 (wet) satisfactory 56 (dry) satisfactory	
Wear resistance (protect)	EN 14322 / EN 438-2	Class 3A	≥ 350	

# EGGER STRUCTURAL FLOORING

## PRODUCT & TECHNICAL INFORMATION

### Product composition

Load-bearing flooring-grade chipboard for use in humid conditions. (characterised by a relative humidity of the surrounding air only exceeding 85 % for a few weeks per year).

EGGER Protect has the added benefit of a Kraft paper impregnated with thermosetting resins bonded to both faces of the chipboard for increased protection and durability.

EGGER Peel Clean Xtra has a heavy-duty polyethylene film laminated on the top surface which is removed once the floor is laid. For a cleaner edge finish, boards can be scribed prior to cutting

### Colour variation

We do not guarantee the colour on EGGER Protect therefore variations in colour between batches are possible.

The colour of EGGER Peel Clean Xtra film may also change due to availability but this does not alter the quality of the film and once peeled from the top surface of the board can be disposed of through a polythene recycling process.

### Loading tables

On joist centres up to 450 mm, 18 mm panels may be used, but on joists centres up to 600 mm, 22 mm panels must be used.

Board	Max span [mm]	Qk Uniformly distributed load kn/m <sup>2</sup>	QK Concentrated point load kn SC1	QK Concentrated point load kn SC2
22 mm P5	400	11.3	3.7	2.6
22 mm P5	600	3.2	3.0	2.0

EGGER Joint and Joist D4 Adhesive. The colour is for identification purposes only and may change with prolonged exposure.



# 2

## Timber Frame Applications

The products presented on pages 6-25 are also suitable for use in Timber frame applications.

In addition EGGER has a range of products designed specifically for use in timber frame construction such as EGGER sawn and planed timber products, produced on state of the art production lines and EGGER OSB3 and OSB4, manufactured using moisture-resistant resins with low emissions.



# EGGER OSB3

THE NATURAL CHOICE FOR TIMBER FRAME APPLICATIONS AND HUMID ENVIRONMENTS.



EGGER OSB3 panels are produced on state of the art continuous production lines, where we optimise the strand orientation and moisture levels of the panels. This means that the panels are not only strong, offering high load bearing capacities but reduce possible dimensional movement due to atmospheric conditions.

The panel’s low formaldehyde content is equivalent to natural wood and has been independently tested and CE certified according to EN13986. Panels are also certified by the BBA certificate number 08/4546.

EGGER OSB3 panels are suitable for use in a variety of applications including wall sheathing, SIPs panels, roof decking, sarking and flooring applications. Larger sized panels up to 6 m in length are also possible, which, depending on your build method, could result in fewer panel / joint connections being required, helping to speed up your build with fewer potential issues on-site.

For board sizes and pack quantities see page 27.

AT A GLANCE BENEFITS

- Available from stock via our 2 UK dedicated distribution hubs.
- Developed for external applications and in humid environments.
- Provides high performance with dimensional stability.
- Ensures minimal dimensional movement and offers better overall dimensional stability.
- Low formaldehyde content.
- Larger sized panels up to 6 m are available on request.

# EGGER OSB4

A HIGH PERFORMANCE, HEAVY DUTY LOAD BEARING MOISTURE RESISTANT BOARD.



EGGER OSB4 is a synthetic resin bonded flat pressed board with a three layer structure consisting of (micro Veneer) specially thin aligned stands of up to 160 mm which ensures the panels are not only strong but have high load bearing characteristics enabling larger panel sizes of up to 6 m.

Panels have a low formaldehyde content and are suitable for use in variety of applications including wall sheathing, roof decking, sarking, SIPs panels and flooring.

AT A GLANCE BENEFITS

- Can be left exposed to the elements for up to 3 months during the build process.
- Higher dimensional stability and low thickness swelling for a stronger board.
- Good moisture resistance properties.
- Available in thicknesses 8 – 30 mm



EGGER OSB3 & OSB4  
DESIGN CONSIDERATIONS

Roofing (Sarking)

EGGER OSB is suitable for use as a flat or pitched roof or may be used as a pitched roof lining for tiles or slates. Design and board installation of flat or pitched roofs should be in accordance with BS 7916. During installation the boards should be protected from wet weather conditions and boards must be dry when applying a waterproof membrane. Where insulation is attached above the supporting deck or in non-ventilated roof structures the condensation risk has to be checked by calculation for sufficient drying capacity.

Board thickness will depend upon application and support centres but as a general guide, a pitched roof should not be less than 9 mm. For flat roofs which do not require access should not be less than 11 mm.

- On flat roofs the decking provides a suitable substrate for the following waterproofing specifications:
- Built up felt roofing in accordance with BS 8217
  - Mastic asphalt roofing in accordance with BS 8218

Walls (Sheathing)

Design and board installation for sheathing panels in timber frame constructions should be in accordance with BS 7916, BS 5268-6.1. and BS 5268-2 and include provision for moisture movement gaps. Temporary exposure to the elements is expected but should not be for prolonged periods. When using EGGER OSB for cold frame construction external walls must incorporate an effective vapour control layer on the room side with suitable weather protection on the outside surface incorporating a ventilated cavity and damp-proof courses.

EGGER OSB can replace conventional plywood sheathing for detailing such as openings, sole plates, eaves fixing of wall ties and the resulting effect on the racking strength at openings.

Board Conditioning

EGGER OSB panels should be conditioned on-site for a period of at least 48 hours to allow them to reach a moisture content which is close to the final in-service conditions.

Type of fixing

EGGER OSB can be attached with screws, staples and nails. The length of the nail/screw should be at least 2.5 times greater than the board thickness. With staples, a minimum wire gauge of 1.53 mm should be used. Corrosion resistant fasteners, e.g. made from galvanised or stainless steel, are to be used. Due to the high withdrawal strength, only flat-head nails with gutter groove, screw nails or annularly threaded nails should be used. The crosswise orientation of the strands in the EGGER OSB creates a secure base for the fastener, even in the outermost board edge. The thick core-layer structure ensures a high withdrawal strength around the edges.

Expansion Provision

Square edged panels for use in roof decking should have a 3 mm gap between panels. Square edged panels for use as wall sheathing should have a gap of 2 mm between panels. In addition to the above, a perimeter gap of 2 mm per metre run of roof should be allowed where the roof abuts another construction. See EN/TS 12872.

EGGER OSB3 & OSB4  
PRODUCT & TECHNICAL INFORMATION

Product Composition

EGGER OSB3 and OSB4 are produced as a flat hardboard with a three-layer structure of oriented distributed strands (micro-veneers) according to DIN EN 300. The special strand geometry (length up to 160 mm) has a high degree of strand orientation in the grain direction of the outer layer which assures outstanding technical characteristics and very good inherent stability. EGGER OSB3 and OSB4 meet EN classification according to BS EN 1995-1-1 (EC5), OSB3 and OSB4 can be used for applications in usage class 1 (dry conditions) and 2 (humid conditions).

Panel dimensions and pack sizes

EGGER OSB3 and OSB4 panels are available in a range of sizes and thicknesses from 6 – 30 mm.

Please contact us for more information.

Performance

Essential characteristics of OSB3 and OSB4.

Properties	Test method	Unit	EGGER OSB3			EGGER OSB4			
Thickness range		mm	6–10 mm	11–17 mm	18–25 mm	8–10 mm	11–18 mm	19–25 mm	26–30 mm
Bending strength major axis	EN 310	N/mm²	18	16.4	14.8	25	25	25	25
Bending strength minor axis	EN 310	N/mm²	9	8.2	7.4	15	15	15	15
Modulus of elasticity major axis	EN 310	N/mm²	4,930	4,930	4,930	7,000	7,000	7,000	7,000
Modulus of elasticity minor axis	EN 310	N/mm²	1,980	1,980	1,980	3,000	3,000	3,000	3,000
Thickness swelling 24 h	EN 317	%	≤ 15%	≤ 15%	≤ 15%	≤ 12%	≤ 10%	≤ 10%	≤ 10%
µ-value *	EN ISO 12572	–	200/150	200/100	200/100	200/200	200/200	200/200	200/200
Thermal conductivity λR	EN 13986	W/(mK)	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Reaction to fire (Euroclass)	EN 13986 EN 13501-1	–	(≥ 9 mm) D-s2, d0 (< 9 mm) E	D-s2, d0	D-s2, d0	D-s2, d0	D-s2, d0	D-s2, d0	D-s2, d0
Length change per 1 % material humidity change	EN 318	% / %	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Formaldehyde emissions	EN 717-1	ppm	E1	E1	E1	E1	E1	E1	E1



# EGGER SAWN & PLANED TIMBER PRODUCTS

WITH ONE OF THE MOST ADVANCED SAWMILLS IN EUROPE, WE ARE NOW ABLE TO OFFER SAWN & PLANED TIMBER.



Produced on state-of-the-art production lines at our sawmill in Brilon, Germany, we work closely with our customers to be able to offer a wide variety of timber products to meet specific market requirements.

EGGER timber is utilised as construction material for the prefabricated house industry, the building sector, as well as the DIY sector and the packaging industry.

We offer CE marking on both visually and mechanically stress graded timber. Timber is produced in state-of-the-art technology kiln chambers, which are certified according to IPPC Standard, ISPM 15, ensuring constant high qualities. And our quality management system is certified by independent auditors and thereby meets the high requirements of ISO 9001.

The sustainability and environmental friendliness of our timber products is checked and guaranteed by independent institutes. All the relating data is publicly accessible in our Environmental Product Declaration (EPD). With the chain of custody certification from PEFC and FSC®, third parties approve that our whole product range conforms to the criteria of sustainability.

## AT A GLANCE BENEFITS



- Planed and sawn timber produced on state-of-the-art production lines.
- Consistent product quality endorsed by internal procedures and external auditing.
- All available in full load quantities delivered direct from our sawmill to the customer.

Product grading strictly complies with the requirements of the market and our customers. We offer a wide range of kiln dried Spruce and Pine in dimensions suitable for the UK and Irish markets, which can be ordered in full load quantities, delivered by truck directly from the sawmill. Should you have specific requirements please contact us to discuss.



TIMBER FRAME



# 3

## EGGER for commercial and industrial projects

In the demanding environment of commercial and industrial construction it is essential you have access to a flooring product that will deliver exceptional quality and versatility.

With EGGER OSB HDX flooring you will be sure that you have all of this and more, giving you the ability and versatility to work quickly, efficiently and cost effectively.



EGGER OSB HDX

THE LIGHTER, STRONGER ALTERNATIVE TO 38 MM CHIPBOARD .



EGGER OSB HDX is a brand new 30 mm heavy duty, load bearing OSB4 panel.

It is the ideal solution for heavy duty load bearing environments such as mezzanine flooring, racking, shelving, working platforms and decking, where 38 mm chipboard would typically be used.

Due to the low swelling properties of EGGER OSB HDX it is suitable for use in humid environments and **less likely than P6 chipboard to pick up moisture** which can lead to uneven floors.

It has a tongue and groove profile on the 2 long edges and is laid the same way as 38 mm chipboard. However, due to only being 30 mm thick, EGGER OSB HDX is around **20% lighter**. That's despite being wider than the typical chipboard panel (675 mm as opposed to the usual 600 mm)

A lighter, wider board means that it is **easier to manoeuvre and quicker to lay**.

30 mm EGGER OSB HDX outperforms 38 mm chipboard for:

- Point loads

■ UDLs
- Strength

■ Stiffness

Therefore potentially floors could be designed to take **higher loads**, or use **fewer joists**, providing the **opportunity for significant savings**.

The table below shows the differences between EGGER OSB HDX and P6 38 mm chipboard

Properties	EGGER OSB HDX (30 mm)	P6 38 mm Chipboard
Bending strength	25 N/mm²	15.8 N/mm²
Modulus of Elasticity (stiffness)	7000 N/mm²	2770 N/mm²
Safe long term point load over 600 mm	5.4 kN	4.7 kN
Safe long term point load over 800 mm	4.4 kN	4.0 kN
Safe long term UDL over 600 mm	27.8 kN/m²	17.7 kN/m²
Safe long term UDL over 800 mm	15.6 kN/m²	7.5 kN/m²

Determined according to EN 12871/ EN 1995, service class 1 conditions. Limited by deflection of span L/200, according to permanent/working load ratio.

•••••

AT A GLANCE BENEFITS

■ Higher point loads and UDLs.

■ Stronger and stiffer.

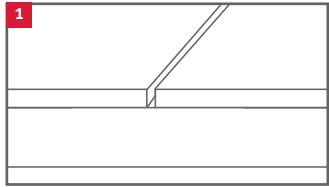
■ Around 20% lighter.

■ Quicker to lay.

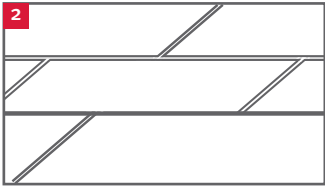
Dimensions: 2400 x 675 x 30 mm

(other lengths may be available upon request)

EGGER OSB HDX  
FITTING METHOD



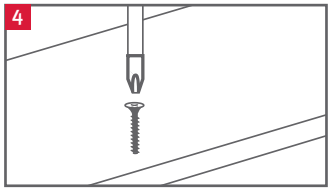
EGGER OSB HDX boards should be laid with the longest edges at right angles to the joists so all short end joints land on a joist. Where this is not the case, refer to local building authority guidelines



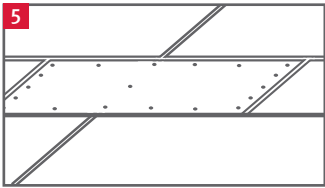
Joints should always be staggered in a brick bond fashion, with the perimeter of the floor continuously supported.



An expansion gap of 10 mm or 2 mm per metre run (whichever is greater) should be provided to the floor perimeter and against all walls and abutments. For floors which are in excess of 10 m long, intermediate movement gaps should be incorporated and finished with a compressible filler or proprietary movement joint cover.



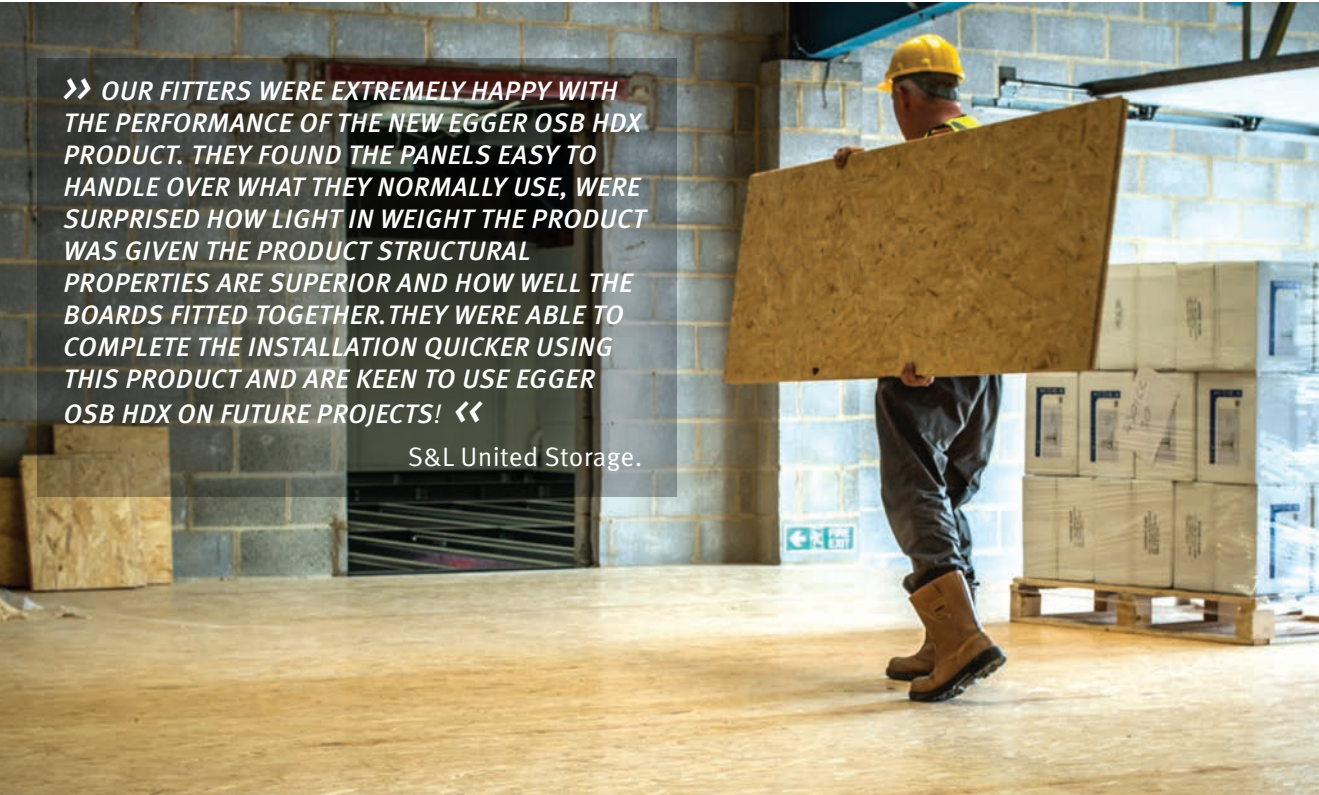
Fastenings should be made not less than 25 mm from the board edges. All boards must be securely fastened to each joist or noggin with a fixing of a size and type suitable for the design of the supporting joists. For example, if fitting boards on a metal frame it would be advisable to use 50 mm, 12 gauge self-tapping screws. Alternatively, if boards are being fixed to timber joists it would be advisable to use No. 8 screws, at least 60 mm in length.



Fasteners should be spaced around the perimeter of the board at one fixing per joist and then add a single fixing per joist in the centre of the board.



DESIGN CONSIDERATIONS



EGGER OSB HDX meets and exceeds all of the requirements in the table below:

Board type according EN 300 / Z-9.1-566 (DIBt)

Mechanical Properties	Standard	Unit	Requirement
Board Thickness			30mm
Density	EN 323	(kg/m³)	≥600
Internal bond	EN 319	(N/mm²)	≥0.30
Internal bond after boiling test	EN 300AA	(N/mm²)	≥0.08
Bending strength major axis	EN 310	(N/mm²)	≥29
Bending strength minor axis	EN 310	(N/mm²)	≥16
Modulus of elasticity major axis	EN 310	(N/mm²)	≥5000
Modulus of elasticity minor axis	EN 310	(N/mm²)	≥2400
Swelling in thickness 24h	EN 317	(%)	≤10
Moisture content*1	EN 322	(%)	2-12
Sanding grade			Grade 100
Formaldehyde content*2	EN 120	(mg/100g)	≤2.0

\*1) When dispatched

\*2) Perforator value according to EN 120 according "DIBt- recommendation 100" from June 1994 are the allowed values: half year average value: 6.5mg HCHO/100g abs. dry board. Single value: 8.0mg HCHO/100g abs. dry board.

General maintenance and cleaning

A stiff brush/broom and damp mop/cloth should be sufficient to clean the product.

Storage

EGGER OSB HDX should be stored in a dry enclosed building, off the ground, preferably on at least 3 equidistant bearers to allow air to circulate.

Loading information

To design and detail your specification accordingly please note that Annex K of BS5268-2:2002 dictates the method of assessment of deflection under various loading periods and defines the limit of such deflections. Accordingly the loadings in the tables are limited by deflections of the board to span/200 and span/300 under long term dead plus live loading.

Manufactured in accordance with EN300-6:2006 EGGER OSB HDX it is suitable for heavy duty load bearing floors in a dry or humid environment, such as for decking and mezzanine floors, shelving and racking.

Independent performance testing acc. to EN 12871 has confirmed best point load capability.

Uniformly distributed load

Based on testing acc. to EN 789 and EN 1058 specific characteristic values have been determined for OSB HDX using modifications factors detailed in Eurocode 5, EN 1995-1-1:2010. The values always consider bending and deflection limit as fulfilled.

Safe Long Term UDL uniformly distributed load – double span (kN/m²)

			CC span				
OSB HDX		Service Class	400 mm*	480 mm*	600 mm	800 mm	1200 mm
Strength limit		SC1	47.5	33.0	21.0	11.7	5.1
Deflection limit	L/200	SC1	90.0	53.0	27.8	15.6	3.3
	L/300	SC1	61.0	35.5	18.0	7.6	2.1

\*Please note that values for cc-span 400mm and 480mm in safe long term UDL are based upon estimated calculations (acc.to B.Wissmann;Univ Hannover, 2013).

Concentrated loads

Adequate provision should be made for static and dynamic effects of concentrated loads such as wheel loads and racking systems. Spreader plates should also be provided if necessary to transfer permanent loads to the supporting structure such as storage tanks and guard rail posts.

Safe long term point load (kN)

CC span				
Service Class	400 mm*	480 mm*	600 mm	800 mm
SC1	5.9	5.6	5.4	4.4
SC2	4.8	4.5	4.3	3.5

Determined acc. to EN 12871/EN 1195.

\*Please note that values for cc-span 400mm and 480mm in safe long term point loads are based upon estimated calculations (acc.to B.Wissmann;Univ Hannover, 2013).

Safe medium term point load (kN)

CC span				
Service Class	400 mm*	480 mm*	600 mm	800 mm
SC1	8.0	7.8	7.6	6.2
SC2	6.4	6.2	6.0	4.9

Determined acc. to EN 12871/EN 1195.

\*Please note that values for cc-span 400mm and 480mm in safe long term point loads are based upon estimated calculations (acc.to B.Wissmann;Univ Hannover, 2013).

Hand pallet trucks

- For 1.0 tonne pallet truck; use up to a maximum of 800 mm joist centres.
  - For 1.5 tonne pallet truck; use up to a maximum of 480 mm joist centres.
- The above loads are permissible assuming the load on no one wheel or bogie exceeds the maximum loading described.

Note: The isolated detachment of strands from the OSB surface by driving with pallet trucks will not affect the viability of the boards.



# 4

## EGGER and the environment

At EGGER we are extremely proud of our environmental record and take our responsibilities with regard to the environment and sustainability very seriously indeed.

EGGER UK's environmental management system complies with the requirements of ISO14001 and our stringent, Group-wide environmental policies adhere to the strictest regulations prescribed by the wood-processing industry, and touch on all aspects of our operations – from the harvesting of the timber we use to the continual monitoring of the emissions we discharge.

As you might expect, within the chain of custody our plants are all PEFC- and/or FSC®-certified, depending on the availability of wood. We only ever use wood sourced from forest thinnings and waste resulting from our manufacturing process which is used in our own biomass plant to create energy for the factory.

If you would like to find out more about EGGER's environmental policies or targets, these can be viewed by visiting [www.egger.co.uk/environment](http://www.egger.co.uk/environment)



# EGGER & THE ENVIRONMENT

EGGER PURSUES A FAR REACHING ENVIRONMENTAL POLICY AND ADHERES TO THE STRICT ECOLOGICAL REGULATIONS LAID DOWN BY THE WOOD PROCESSING INDUSTRY.

### Protecting the environment begins with responsible and sustainable forestry

Responsible and sustainable forestry has the highest priority at EGGER. For the production of wood materials we exclusively use wood from forest thinnings and wood residues from sawmills, as well as suitable recycled wood. Within the chain of custody, our plants are PEFC\* and/or FSC®\*- certified depending on the availability of wood.

\* PEFC (Programme for the Endorsement of Forest Certification Schemes) and/or FSC (Forest Stewardship Council®).



### Recycling and thermal utilisation of wood

In the UK we have our own wood recycling company 'Timberpak' which collects, sorts and supplies timber which has already been used (e.g. uncontaminated timber such as pallets and old floorboards). Approximately 40% of the timber we use at our Hexham plant is recycled wood. Recycling timber is a sustainable use of wood resources and helps improve the environmental efficiency of its use.



Those wood materials that accrue during production and which cannot be used materially are combusted in our energy plant. The energy created through this is utilised for the drying of the wood chips used in the production of wood-based materials.

Any wood that cannot be used by us would otherwise be sent to landfill, such as process dust, is used to create energy in our energy plant to power our production processes. This reduced our requirement for fossil fuels and is the best most environmentally sound use of wood.

### We reduce CO<sub>2</sub>

Through the processing of wood in EGGER products, annually **5.1 million tonnes** of CO<sub>2</sub>\* are stored; this corresponds to the CO<sub>2</sub> emission from **900,000** households\*\*. Through the use of recycled wood residues we save the environment **1.56 million tonnes** of CO<sub>2</sub> per year, and through our biomass power plants we annually achieve saving of **746,000 tonnes** of CO<sub>2</sub> in comparison to the combustion of natural gas.



1m<sup>3</sup> spruce wood locks 825 kg CO<sub>2</sub>  
1m<sup>3</sup> raw chipboard locks 1,100 kg CO<sub>2</sub>

Calculated from the 02/2010 EGGER EPDs based on GWP 100 production.

\* Established from the greenhouse potential of the EGGER EPDs (GWP 100 in kg CO<sub>2</sub> equivalent, cradle-to-grave) on the basis of the production figures 2013/14).

\*\* An average European household with four people generates approximately 5.7 tonnes of CO<sub>2</sub> per year, source: according to EUROSTAT 22/2011.

### Sustainability Cycle

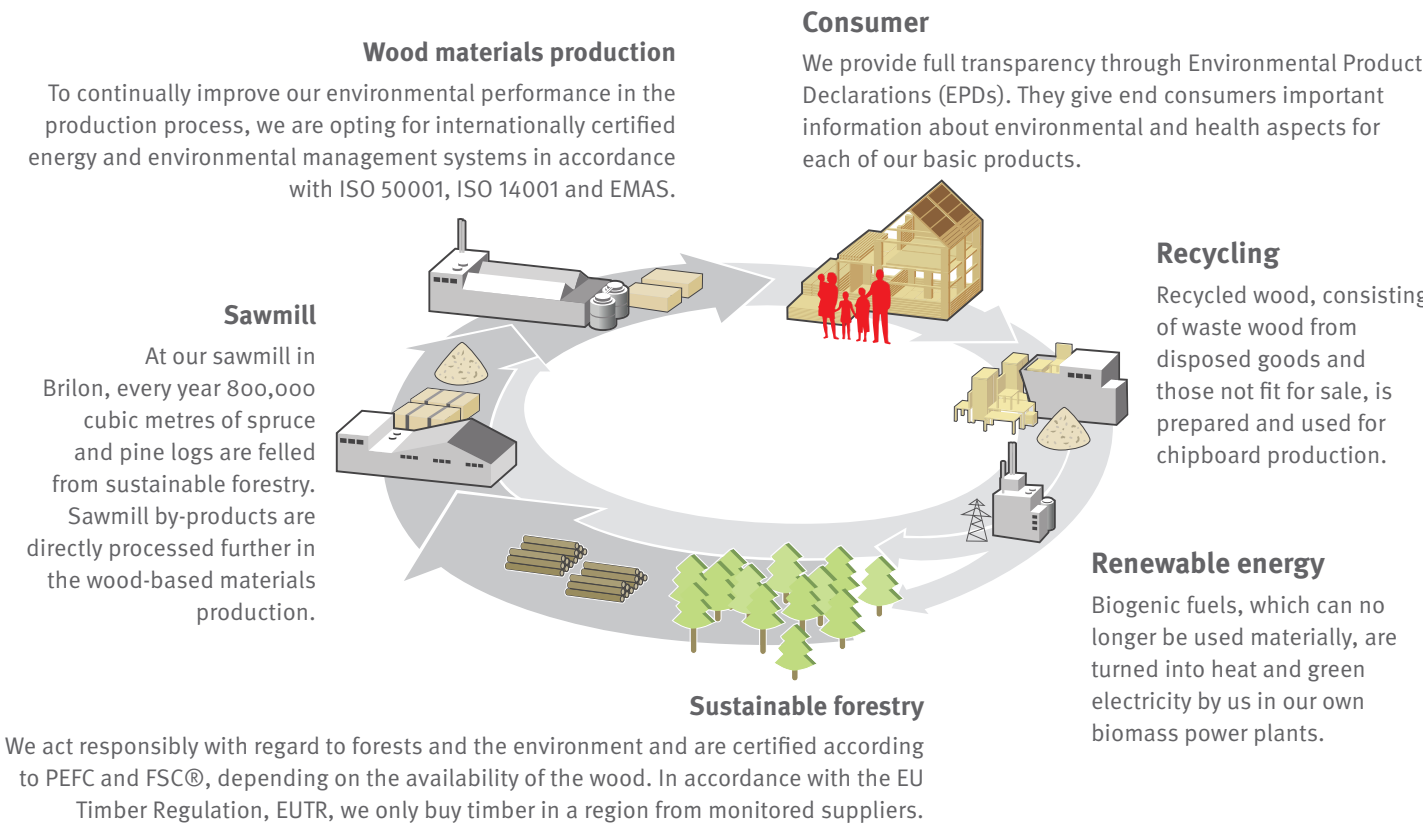
Starting with the collection of timber from renewable forests and wood residues from sawmills, to the generation of energy through environmentally friendly production techniques and finally, through to the continual monitoring of emissions, very little waste is generated during the manufacturing of chipboard, as almost all by-products are used, whether as a raw material, or as an energy source.

When timber is harvested from the forest it is usually delivered to a sawmill and the parts of the tree that cannot be used by the sawmilling industry (e.g. the tops) can be used by EGGER.

Furthermore the off-cuts and sawdust generated from the sawmills when they produce sawn timber can then also be used by EGGER.

EGGER and the wood using industries in general advocate that wood should be recycled within products used, recycled, used again, etc. until it has no further use other than a source of energy. And then only then should it be burnt.

Respecting this use and hierarchy of wood ensures that carbon is stored for longer, which, of course, is better for the environment.





# 5

## Our service to you

Our dedicated, highly experienced and knowledgeable Building Sales Team and Customer Service Department are on hand to offer expert advice, or you can contact our Building Products Hotline with any queries or literature and sample requests you may have.

Of course, our website is packed with useful information and advice, and has technical datasheets and certificates that you can download along with product information.

Our aim is to always exceed our customers' expectations whenever they choose EGGER, so please don't hesitate to contact us should you need to.





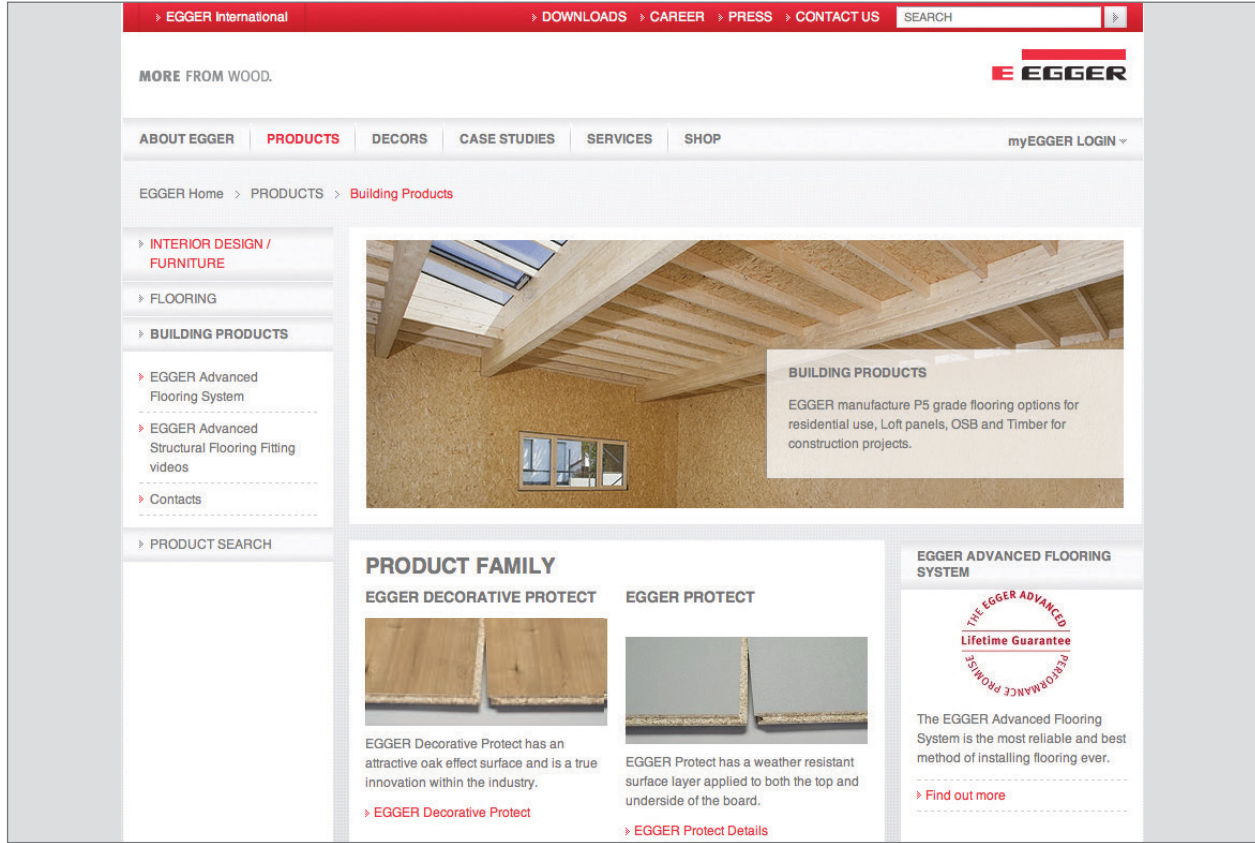
# BUILDING PRODUCTS HOTLINE

AS WELL AS PROVIDING YOU WITH THE FINEST WOOD-BASED PANEL PRODUCTS AVAILABLE, AT EGGER WE WANT TO OFFER YOU THE VERY BEST CUSTOMER SERVICE TOO.



**BUILDING PRODUCTS HOTLINE**  
If you have a technical enquiry, sample request or anything else that you feel you need help and advice with, please call our dedicated building products hotline:  
  
☎ 0845 602 4444 (Charged at local rate).  
From R.O.I. please call ☎ +44 1434 613304

# ONLINE SUPPORT



**ONLINE TECHNICAL SUPPORT**  
Visit our website for product and technical information on the following:  
▪ COSHH data  
▪ Technical data  
▪ Fitting guides  
▪ Certificates  
  
☎ [www.egger.com/building](http://www.egger.com/building)



# ONLINE 'HOW TO' VIDEOS

OUR ADVANCED STRUCTURAL FLOORING SYSTEM AND LIFETIME GUARANTEE HAS PROVEN SO POPULAR WE HAVE MADE FURTHER INVESTMENTS TO ENHANCE THE USER EXPERIENCE AND MAKE INSTALLATION EVEN EASIER.



We have produced a collection of 3D animated fitting videos. The new videos are in keeping with the Advanced Structural Flooring System's simple six step installation process.

Each video offers users a quick guide on how to fit EGGER's Advanced products which includes; **EGGER P5**, **EGGER Peel Clean Xtra** and, **EGGER Protect** in conjunction with **EGGER Joint & Joist D4 Adhesive** and details of how to obtain the Advanced Lifetime Guarantee.

They're compatible with any device from smart phones to tablets and PCs so they can be viewed in real-time on site.

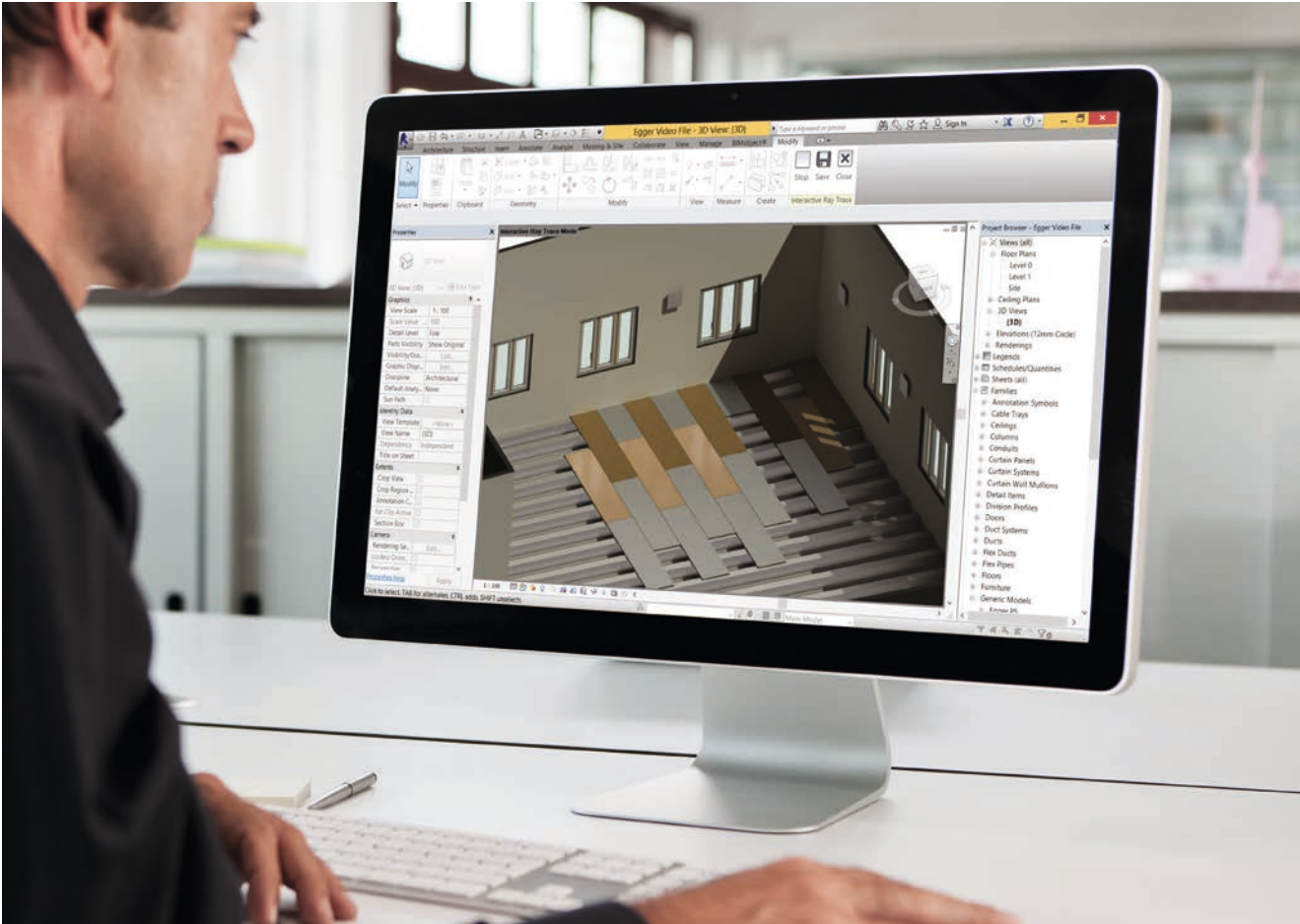
Simply scan the **QR code** or view them on the **EGGER You Tube channel**.



**Want to know more?**  
Scan the QR code for to watch our fitting videos.

# BIM

3D BUILDING INFORMATION MODELLING (BIM)



EGGER's Advanced structural flooring boards have now been generated into high quality data rich 3D building information modelling files (BIM components). Created specifically for architects, designers and specification professionals to easily download and use within their digital BIM specifications and projects.

Our BIM structural flooring components are hosted and can be downloaded for free from the NBS National BIM Library at [www.nationalbimlibrary.com](http://www.nationalbimlibrary.com) and from the Bimobject portal at [www.bimobject.com](http://www.bimobject.com) or from EGGER's website at: [www.egger.com/bim](http://www.egger.com/bim)



EGGER UK HEAD OFFICE  
FACTORY TOURS



At our **EGGER UK head office in Hexham, Northumberland** we can offer our customers a **comprehensive guided factory tour** which encompasses our whole production process – from raw materials through to finished boards. Tours take approximately 2 hours.

To book your factory tour please contact your EGGER building products Account Manager or call the building products hotline.



**BUILDING PRODUCTS HOTLINE**  
☎ 0845 602 4444 (Charged at local rate).  
From R.O.I. please call ☎ +44 1434 613304

CUSTOMER PRODUCT TRAINING



Would you or your team like to know more about EGGER building products? We can offer **training on site at our Hexham head office** or **we can come to your place of work to train you and your team** on EGGER building products and systems.

To book a training event please contact your EGGER building products Account Manager or call the building products hotline.



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[building.uk@egger.com](mailto:building.uk@egger.com)



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to watch our fitting  
videos.

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