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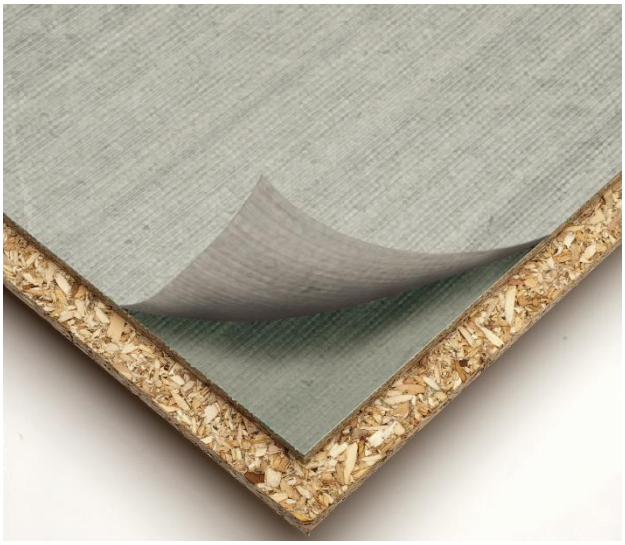
Agrément Certificate
17/5461
Product Sheet 1

FLOORING BOARDS

KRONOBUILD FAST CLEAN AND FAST PROTECT

This Agrément Certificate Product Sheet(1) relates to Kronobuild Fast Clean and Fast Protect, P5 or P7 flooring grade chipboard or loadbearing OSB for use in humid conditions, faced on one side with either a polyethylene or a polypropylene peel-off film, for use in joisted floor construction. The film, together with sealed joints, provides temporary weather protection to the boards prior to completion of the building envelope.

(1) Hereinafter referred to as 'Certificate'.



CERTIFICATION INCLUDES:

- factors relating to compliance with Building Regulations where applicable
- factors relating to additional non-regulatory information where applicable
- independently verified technical specification
- assessment criteria and technical investigations
- design considerations
- installation guidance
- regular surveillance of production
- formal three-yearly review.

KEY FACTORS ASSESSED

Loading — the products can resist the loads associated with their use in normal joisted constructions (see section 6).

Resistance to weather — a constructed floor will have satisfactory resistance to weather and can be left exposed for up to 60 days (see section 7).

Slip resistance — the peel-off film has a moderate potential for slip in wet conditions and a low potential for slip in dry conditions (see section 8).

Properties in relation to fire — chipboard and OSB have a classification of D_{fl}-s1 in accordance with harmonised European Standard BS EN 13986 : 2004, Table 8 (see section 9).

Durability — the completed flooring will have a life equal to the building in which it is installed (see section 13).

The BBA has awarded this Certificate to the company named above for the products described herein. These products have been assessed by the BBA as being fit for their intended use provided they are installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of Second issue: 23 February 2021

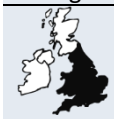
Hardy Giesler
Chief Executive Officer

The BBA is a UKAS accredited certification body – Number 113.
The schedule of the current scope of accreditation for product certification is available in pdf format via the UKAS link on the BBA website at www.bbacerts.co.uk
Readers MUST check the validity and latest issue number of this Agrément Certificate by either referring to the BBA website or contacting the BBA directly.
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Regulations

In the opinion of the BBA, Kronobuild Fast Clean and Fast Protect, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements of the following Building Regulations (the presence of a UK map indicates that the subject is related to the Building Regulations in the region or regions of the UK depicted):



The Building Regulations 2010 (England and Wales) (as amended)

Requirement:	**A1(1)**	**Loading**
Comment:		The products have sufficient strength and stiffness to sustain and transmit the design load, without excessive deflection, to the primary structure. See section 6 of this Certificate.
Requirement:	**B3(1)(3)**	**Internal fire spread (structure)**
Comment:		The products can contribute to satisfying this Requirement. See section 9 of this Certificate.
Regulation:	**7(1)**	**Materials and workmanship**
Comment:		The products are acceptable. See section 13 and the *Installation* part of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	**8(1)**	**Durability, workmanship and fitness of materials**
Comment:		The products can contribute to a construction satisfying this Regulation. See section 13 and the *Installation* part of this Certificate.
Regulation:	**9**	**Building standards applicable to construction**
Standard:	1.1(a)	Structure
Comment:		The products have sufficient strength and stiffness to sustain and transmit the design load, without excessive deflection, to the primary structure, with reference to clause 1.1.1[(1)(2)] of this Standard. See section 6 of this Certificate.
Standard:	2.3	Structural protection
Comment:		The products can contribute to a construction satisfying this Standard, with reference to clauses 2.3.0[(1)(2)], 2.3.1[(1)(2)], 2.3.2[(1)(2)] and 2.3.3[(1)(2)]. See section 9 of this Certificate.
Standard:	7.1(a)(b)	Statement of sustainability
Comment:		The products can contribute to satisfying the relevant requirements of Regulation 9, Standards 1 to 6, and therefore will contribute to a construction meeting a bronze level of sustainability as defined in this Standard.
Regulation:	**12**	**Building standards applicable to conversions**
Comment:		Comments made in relation to the product under Regulation 9, Standards 1 to 6, also apply to this Regulation, with reference to clause 0.12.1[(1)(2)] and Schedule 6[(1)(2)].

(1) Technical Handbook (Domestic).
(2) Technical Handbook (Non-Domestic).



The Building Regulations (Northern Ireland) 2012 (as amended)

Regulation:	**23(a)(i)(iii)(iv)(b)(i)**	**Fitness of materials and workmanship**
Comment:		The products are acceptable. See section 13 and the *Installation* part of this Certificate.

Regulation:	**30**	**Stability**
Comment:		The products have sufficient strength and stiffness to sustain and transmit the design load, without excessive deflection, to the primary structure. See section 6 of this Certificate.
Regulation:	**35(1)(3)(4)**	**Internal fire spread — Structure**
Comment:		The products can contribute to satisfying this Regulation. See section 9 of this Certificate.

Construction (Design and Management) Regulations 2015
Construction (Design and Management) Regulations (Northern Ireland) 2016

Information in this Certificate may assist the client, designer (including Principal Designer) and contractor (including Principal Contractor) to address their obligations under these Regulations.

See sections: 3 *Delivery and site handling* (3.2 and 3.5), 8 *Slip resistance* and 17 *Procedure* (17.14) of this Certificate.

Additional Information

NHBC Standards 2021

In the opinion of the BBA, Kronobuild Fast Clean and Fast Protect, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards*, Chapters 6.4 *Timber and concrete upper floors*, 6.10 *Light steel framed walls and floors* and 9.3 *Floor finishes*.

CE marking

The chipboard and OSB used to produce Kronobuild Fast Clean and Fast Protect are CE marked in accordance with harmonised European Standard BS EN 13986 : 2004.

Technical Specification

1 Description

1.1 Kronobuild Fast Clean and Fast Protect are P5 or P7(1) flooring grade chipboard or loadbearing OSB for use in humid conditions, faced on one side with a peel-off film consisting of either:

- a cross-oriented, laminated polyethylene membrane, or
- a woven polypropylene fabric coated with a thin polypropylene waterproofing layer.

The boards are manufactured in accordance with BS EN 312 : 2010, and the OSB in accordance with BS EN 300 : 2006.

(1) P7 grade chipboard available to special order.

1.2 The products have the nominal characteristics given in Table 1.

Table 1 Nominal characteristics

Characteristic (unit)	Chipboard	OSB
Thickness (mm)	18, 22	18, 22
Length (mm)	2400	2400
Width (mm)	600, 1200	600, 1200
Density (kg·m^{-3})	625 to 680	600 to 630
Edge profile	tongue-and-groove(1)	tongue-and-groove(1)

(1) Boards with square edges can also be used provided that the butt joints are formed over joists or noggings and the joint is sealed using Kronobuild Specially Formulated D4 Adhesive (see section 1.4).

1.3 Kronospan Fast Protect differs from Fast Clean in that it has a grey-coloured finish once the film has been peeled from the flooring board, as opposed to the 'natural' colour of the Fast Clean product.

1.4 Also for use with the product is Kronobuild Specially Formulated D4 Adhesive, a PU bonding adhesive to BS EN 204 : 2016, Class D4.

2 Manufacture

2.1 During the manufacturing process, the flooring board, laminate and adhesive are brought together under controlled pressure, temperature and line speed.

2.2 As part of the assessment and ongoing surveillance of product quality, the BBA has:

- agreed with the Certificate holder the quality control procedures and product testing to be undertaken
- assessed and agreed the quality control operated over batches of incoming materials
- monitored the production process and verified that it is in accordance with the documented process
- evaluated the process for management of nonconformities
- checked that equipment has been properly tested and calibrated
- undertaken to carry out the above measures on a regular basis through a surveillance process, to verify that the specifications and quality control operated by the manufacturer are being maintained.

3 Delivery and site handling

3.1 The products are delivered in banded packs, wrapped in polythene. Each pack contains a label bearing the product name, board thickness and type, and a fixing instruction sheet.

3.2 The boards are supplied in the pack sizes given in Table 2.

Table 2 Pack sizes(1)

Thickness (mm)	Number of panels per pack	Approximate weight (tonne)
18	86	1.5
22	70	1.5

(1) Board size 2400 x 600 mm.

3.3 The boards should be stored off the ground, preferably on bearers, to allow air to circulate. If stored outside, the boards should be protected using weatherproof sheeting.

3.4 Kronobuild Specially Formulated D4 Adhesive should be stored under cover in the original containers, and at temperatures between 5 and 25°C. It has a shelf-life of nine months.

3.5 The Certificate holder has taken the responsibility of classifying and labelling the product under the *CLP Regulation (EC) No 1272 / 2008* on the *classification, labelling and packaging of substances and mixtures.* Users must refer to the relevant Safety Data Sheet(s).

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on Kronobuild Fast Clean and Fast Protect.

Design Considerations

4 Use

Kronobuild Fast Clean and Fast Protect are satisfactory for use as flooring boards in joisted constructions and, with sealed joints, can be left exposed to the weather for a period of up to 60 days during the building process.

5 Practicability of installation

The products are designed to be installed by a competent general builder, or a contractor, experienced with these types of product.

6 Loading



The products conform to the requirements of BS EN 312 : 2010 (chipboard) and BS EN 300 : 2006 (OSB), and can resist the loads associated with their use in normal joisted constructions.

7 Resistance to weather

7.1 When subjected to standing water for a period of 60 days, a test floor with sealed joints performed satisfactorily.

7.2 In persistently wet conditions, some water penetration may be expected. This could result in some swelling around joints and nail fixings.

8 Slip resistance

Slip-resistance values indicate that the boards have a moderate potential for slip in wet conditions and a low potential for slip in dry conditions. The slip resistance categories are given in Table 3.

Table 3 Slip resistance using 4S/standard pedestrian hard rubber (shoes)(1)

Test result	Classification(2)
< 25	high slip potential
25–35	moderate slip potential
> 35	low slip potential

(1) TRL Pendulum test.

(2) This classification is based on the pendulum test value (PTV) and the recommendations given in *The Assessment of Floor Slip Resistance: The UK Slip Resistance Group Guidelines : Issue 5 : 2016.*

9 Properties in relation to fire



9.1 The products have a classification of D_{fl}-s1 in accordance with harmonised European Standard BS EN 13986 : 2004, Table 8.

9.2 As detailed in BRE Report BR 128 : 1988, an intermediate floor construction incorporating tongue-and-groove boards supported on timber joists at least 37 mm wide, a ceiling of 12.5 mm thick plasterboard, fixed with 40 mm long galvanized nails at 150 mm centres, joints taped and filled, and backed by timber, has been assessed as having a fire-resistance rating (in minutes) of:

loadbearing capacity	30
integrity	15
insulation	15.

9.3 Where any other form of floor construction incorporating the products is subject to fire-resistance requirements, an appropriate assessment or test must be carried out by a United Kingdom Accreditation Service (UKAS) laboratory accredited for the test concerned.

10 Impact resistance

The boards have satisfactory resistance to hard body impact.

11 Formaldehyde

The chipboard flooring boards achieve a Class E1 formaldehyde specification to BS EN 13986 : 2004 and BS EN 312 : 2010. The OSB flooring boards achieve a Class E1 formaldehyde specification to BS EN 13986 : 2004 and BS EN 300 : 2006.

12 Maintenance

As the products are normally covered with a floor finish and have suitable durability (see section 13), maintenance is not required. However, where damage has occurred they should be repaired promptly (see section 18).

13 Durability



Provided the products are fixed to suitably stable and durable floor joists, they will have a life equal to that of the building in which they are installed.

14 Reuse and recyclability

The peel-off film is manufactured from polyethylene or polypropylene, which can be recycled.

Installation

15 General

15.1 Installation of Kronobuild Fast Clean and Fast Protect must be carried out in dry conditions.

15.2 Floor joists and beams must be secured and braced before starting to lay the product. Prior to fixing, any standing water or moisture on surface flanges should be wiped down.

15.3 On joists up to 450 mm centres, 18 mm thick boards may be used. On joists of wider spacing, up to 600 mm centres, 22 mm thick boards must be used.

15.4 Provision must be made for future access to any pipes and services running between joists. Traps for this purpose should be supported on all sides. If access traps are cut and edges supported, the cut edges must be protected from water by application of Kronobuild Specially Formulated D4 Adhesive.

15.5 All perimeter edges must be sealed using Kronobuild Specially Formulated D4 Adhesive. This is usually carried out after laying the boards, but where this is impractical (eg owing to problems regarding access), the edges should be sealed before laying.

15.6 Annular ring-shank nails of length 55 mm and thickness gauge 10 should be used to fix the product to joists.

16 Supervision and workmanship

16.1 The level of supervision during installation of the product and the associated structure must be sufficient to ensure the quality of workmanship described in BS 8000-5 : 1990.

16.2 After the installation of the boards has been completed, and prior to the commencement of further site work on the installed floor, any pools of water that may have formed should be removed.

17 Procedure

Fixing to I-joists

17.1 Timber-based I-joists are proprietary products which have specific installation requirements concerning their installation, for example relating to lateral restraint. The number of fixings required will vary depending on factors such as the geometry of the particular installation, the dimensions of the I-joist and whether the deck is required to act as a diaphragm. When installing the boards on I-joists, the recommendations of the joist manufacturer should be followed.

17.2 The method set out in sections 17.7 to 17.11 uses the minimum number of fixings acceptable to the BBA (equivalent to a fixing every 1200 mm along each joist). However, for each installation, guidance from the I-joist manufacturer, or other suitably qualified persons, should be obtained and followed, including increasing the number of fixings where appropriate.

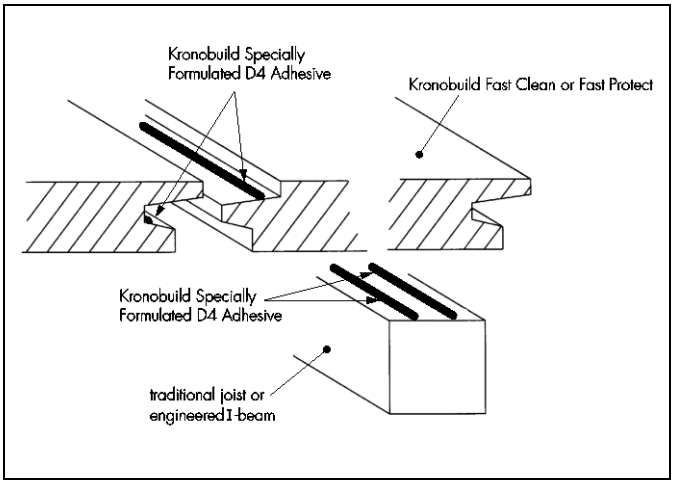
General

17.3 The tongue-and-groove flooring boards are laid on top of the joists with the longest edges at right angles to the joists. Short end joints are staggered with the ends falling on the centre line of a joist. If they overhang, additional timber supports or noggings should be provided. Although long edges need no intermediate support between joists, support noggings should be fixed at floor perimeters where unsupported edges abut a wall.

17.4 Laying starts with a single row of boards parallel to the longest wall, allowing for a suitably sized expansion gap. A minimum gap of 10 mm, or 2 mm per metre run of floor, whichever is greater, should be left against all walls and abutments. Particular attention must be paid to maintaining expansion gaps at all times during construction. When large single run floors are being laid, intermediate expansion gaps must be incorporated to allow for possible movement.

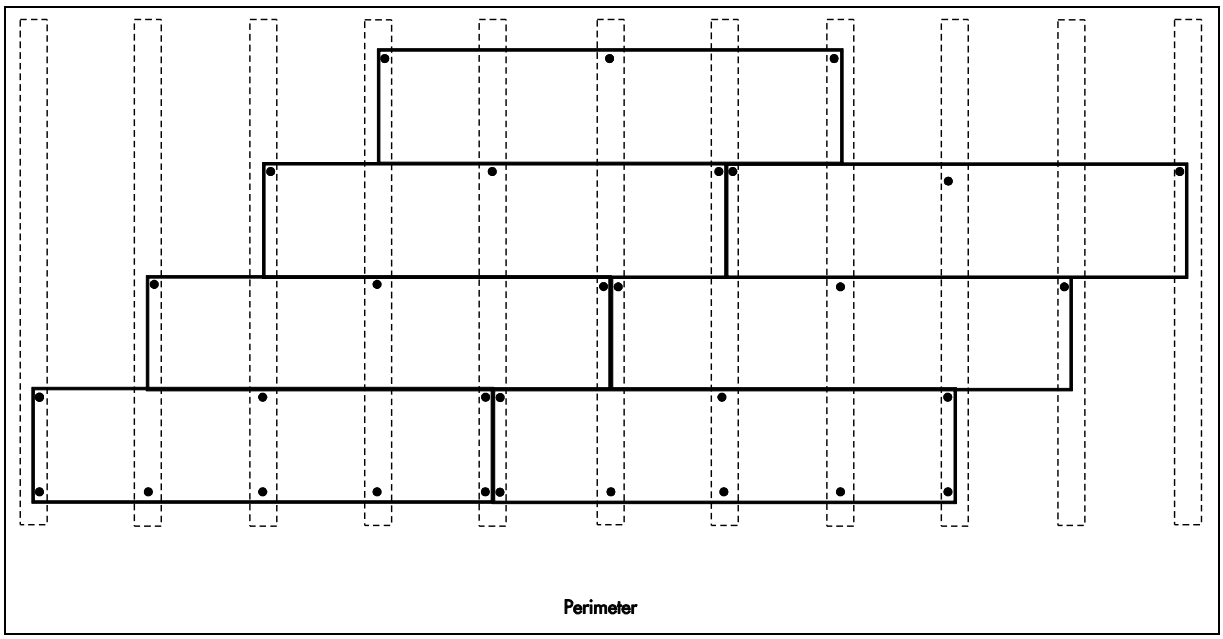
17.5 All tongue-and-groove edges must be glued with a liberal application of adhesive applied to both the tongue and the groove of the joint (see Figure 1). When the boards are butted tightly, the glue should reach the top of the joint.

Figure 1 Gluing



17.6 Heads of nails or screws driven through the top surface of the board must be protected by application of a covering layer of Kronobuild Specially Formulated D4 Adhesive.

Figure 2 Nailing pattern for 2400 x 600 mm(1) boards fixed to I-joists at 600 mm centres(2)



(1) For different widths of board, the nailing pattern must be adjusted to fulfil the minimum requirement of one nail every 1200 mm for every joist.
(2) For joist spacings of 450 mm, the nailing pattern must be adjusted to fulfil the minimum requirement of one nail fixing every 1200 mm for every joist.

Pro-fix System

17.7 Two parallel beads of Kronobuild Specially Formulated D4 Adhesive, each of minimum diameter 4 mm, are applied to the top of the I-joists for a length equivalent to the width of the board, for the first run of boards.

17.8 Boards must be fixed within 15 minutes, the first run being placed into position squarely, avoiding any unnecessary dragging which will disturb the adhesive. The first run is fixed to each joist along the perimeter, 50 mm from the board edge, using 55 mm annular ring-shank nails or screws. The boards are also fixed (either by nailing through the top surface of the board 50 mm from the board edge, or by secret nailing through the tongue of the long edge at 20° to the vertical), one annular ring shank nail being fixed to every second I-joist (ie one in the middle and one at each end, giving a total of three nails per board for 600 mm spaced joists).

17.9 The adhesive is applied along the I-joists for a length equivalent to the width of the boards and the next row of boards is staggered by one joist. The boards are then fixed at the rate of three per board (ie one at each end and one in the middle). This nailing pattern gives a mechanical fixing every 1200 mm along each joist (see Figure 2).

17.10 The tongue-and-groove joint is sealed with Kronobuild Specially Formulated D4 Adhesive and any excess adhesive is not removed, but is allowed to cure and form a skin over the joint. Nail runs and exposed areas around the perimeter should be sealed by a brush coat of Kronobuild Specially Formulated D4 Adhesive.

17.11 Subsequent rows are fixed as described in section 17.9. The last row of boards is fixed to each joist along the perimeter, 50 mm from the board edge.

17.12 The floor deck can be walked on immediately after fixing but heavy construction work should be avoided for 24 hours. Care should be taken to avoid disturbing the Kronobuild Specially Formulated D4 Adhesive until it has sufficient strength to resist damage.

Finishing

17.13 If the board surface or edge tape is damaged during the construction period, it must be repaired immediately.

17.14 The product tolerates wet conditions but these may have an adverse effect on site safety.

17.15 When all construction and decoration work is complete and the building is weathertight, the deck should be swept down and the peel-off covering removed by pulling firmly but slowly from the short end. A sharp knife should be used around the perimeter to free any of the covering which may have become snagged.

18 Repair

Under normal conditions of occupancy, the products are unlikely to suffer damage, but if damage does occur, repairs can be carried out in accordance with the Certificate holder's instructions.

Technical Investigations

19 Tests

Test were conducted and the results assessed to determine:

- slip resistance in dry and wet conditions
- standing water resistance of joints sealed with Kronobuild Specially Formulated D4 Adhesive.

20 Investigations

20.1 The manufacturing process was evaluated, including the methods adopted for quality control, and details were obtained of the quality and composition of the materials used.

20.2 A site in progress was examined to establish the practicability of installation.

20.3 A user survey of builders who had used the product was conducted to establish the practicability and performance.

Bibliography

BS 8000-5 : 1990 *Workmanship on building sites — Code of practice for carpentry, joinery and general fixings*

BS EN 204 : 2016 *Classification of thermoplastic wood adhesives for non-structural applications*

BS EN 300 : 2006 Orientated strand boards (OSB). Definitions, classification and specifications

BS EN 312 : 2010 *Particleboards — Specifications*

BS EN 13986 : 2004 + A1 : 2015 *Wood-based panels for use in construction — Characteristics, evaluation of conformity and marking*

BRE Report BR 128 : 1988 *Guidelines for construction of fire resisting structural elements*

21 Conditions

21.1 This Certificate:

- relates only to the product/system that is named and described on the front page
- is issued only to the company, firm, organisation or person named on the front page – no other company, firm, organisation or person may hold or claim that this Certificate has been issued to them
- is valid only within the UK
- has to be read, considered and used as a whole document – it may be misleading and will be incomplete to be selective
- is copyright of the BBA
- is subject to English Law.

21.2 Publications, documents, specifications, legislation, regulations, standards and the like referenced in this Certificate are those that were current and/or deemed relevant by the BBA at the date of issue or reissue of this Certificate.

21.3 This Certificate will remain valid for an unlimited period provided that the product/system and its manufacture and/or fabrication, including all related and relevant parts and processes thereof:

- are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA
- continue to be checked as and when deemed appropriate by the BBA under arrangements that it will determine
- are reviewed by the BBA as and when it considers appropriate.

21.4 The BBA has used due skill, care and diligence in preparing this Certificate, but no warranty is provided.

21.5 In issuing this Certificate the BBA is not responsible and is excluded from any liability to any company, firm, organisation or person, for any matters arising directly or indirectly from:

- the presence or absence of any patent, intellectual property or similar rights subsisting in the product/system or any other product/system
- the right of the Certificate holder to manufacture, supply, install, maintain or market the product/system
- actual installations of the product/system, including their nature, design, methods, performance, workmanship and maintenance
- any works and constructions in which the product/system is installed, including their nature, design, methods, performance, workmanship and maintenance
- any loss or damage, including personal injury, howsoever caused by the product/system, including its manufacture, supply, installation, use, maintenance and removal
- any claims by the manufacturer relating to CE marking.

21.6 Any information relating to the manufacture, supply, installation, use, maintenance and removal of this product/system which is contained or referred to in this Certificate is the minimum required to be met when the product/system is manufactured, supplied, installed, used, maintained and removed. It does not purport in any way to restate the requirements of the Health and Safety at Work etc. Act 1974, or of any other statutory, common law or other duty which may exist at the date of issue or reissue of this Certificate; nor is conformity with such information to be taken as satisfying the requirements of the 1974 Act or of any statutory, common law or other duty of care.

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