# **Specialist Tiling Supplies**

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Agrément Certificate 08/4575

Product Sheet 1

# **SPECIALIST TILING SUPPLIES TILE BACKER BOARDS**

# NO MORE PLY TILE BACKER BOARDS

This Agrément Certificate Product Sheet<sup>(1)</sup> relates to No More Ply Tile Backer Boards, fibre-reinforced cement sheets for use as intermediate substrates for the internal application of ceramic, porcelain and natural stone tiles.

(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**

**Behaviour in relation to fire**— the products do not change the fire resistance of the wall on which they are installed (see section 6).

**Resistance to mechanical damage**— the products will accept the normal impacts likely to occur in service (see section 7).

**Durability** — the products have acceptable durability and will have a service life equal to that of the structure onto which they are fixed (see section 10).

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

Collins

Date of Third issue: 4 December 2015

Originally certificated on 1 August 2008

Construction

John Albon – Head of Approvals Construction Products

Claire Curtis-Thomas
Chief Executive

Claim

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

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# Regulations

In the opinion of the BBA, No More Ply Tile Backer Boards, 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: B2(1) Internal fire spread (linings)

Comment: The products are unrestricted by this Requirement. See section 6 of this Certificate.

Regulation: 7 Materials and workmanship

Comment: The products are acceptable. See section 10 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 are acceptable. See section 10 and the *Installation* part of this Certificate.

Regulation: 9 Building standards applicable to construction

Standard: 2.5 Internal linings

Comment: The products satisfy the requirements of this Standard, with reference to clauses

 $2.5.1^{(1)(2)}$  and  $2.5.2^{(1)(2)}$ . See section 6 of this Certificate.

Standard: 7.1(a) Statement of sustainability

Comment: The products can contribute to meeting the relevant requirements on 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 in relation to the products 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)(b)(i) Fitness of materials and workmanship

Comment: The products are acceptable. See section 10 and the *Installation* part of this Certificate.

Regulation: 34(a) Internal fire spread — linings

Comment: The products satisfy the requirements of this Regulation. See section 6 of this

Certificate.

# Construction (Design and Management) Regulations 2015 Construction (Design and Management) Regulations (Northern Ireland) 2007

Information in this Certificate may assist the client, Principal Designer/CDM co-ordinator, designer and contractors to address their obligations under these Regulations.

See section: 3 *Delivery and site handling* (3.1, 3.2 and 3.4) of this Certificate.

# **Additional Information**

#### **NHBC Standards 2014**

NHBC accepts the use of No More Ply Tile Backer Boards, provided they are installed, used and maintained in accordance with this Certificate, in relation to *NHBC Standards*, Part 8 *Services and internal finishes*, Chapters 8.2 *Wall and ceiling finishes* and 8.3 *Floor finishes*.

# **CE** marking

The Certificate holder has taken the responsibility of CE marking the products in accordance with harmonised European Standard BS EN 12467: 2012. An asterisk (\*) appearing in this Certificate indicates that data shown are given in the manufacturer's Declaration of Performance.

# **Technical Specification**

# 1 Description

1.1 No More Ply Tile Backer Boards are fibre-reinforced cement sheets available with the nominal dimensions and characteristics given in Table 1.

Table 1 Nominal dimensions and characteristics

Characteristic (unit)	Product			
	No More Ply (6 mm)	No More Ply (8 mm)	No More Ply (9 mm)	No More Ply (12 mm)
Colour	grey	grey	grey	grey
Thickness (mm)	6 (±5%)	8 (±7.5%)	9 (±5%)	12 (±5%)
Width (mm)	600	900	900	800
Length (mm)	1200	1200	1200	1200
Max board weight (kg)	6.5	10.5	14.5	15.5
Bending strength <sup>(1)</sup> (dry) (MPa)				
longitudinal	≥17	≥7	≥10	≥7
transverse	≥15	≥7	≥9	≥7

<sup>(1)</sup> Based on results of BBA tests carried out in accordance with BS EN 12467 : 2012.

- 1.2 Ancillary materials for use with the products include:
- No More Ply self-drilling screws available in lengths of 25 mm and 38 mm with a 7.5 mm diameter countersunk head
- No More Ply Megastrength adhesive a one-component polyurethane adhesive, available in 310 ml tubes, for use in fixing the boards to timber floors and stud-work
- No More Ply SBR primer available in 1 litre and 5 litre packs
- waterproof ceramic tile adhesives in accordance with BS EN 12004 : 2007
- waterproof grout in accordance with BS EN 13888 : 2009.

#### 2 Manufacture

- 2.1 The products are manufactured by a batch blending operation, followed by either the Hatschek process and high-pressure steam autoclaving or oven drying.
- 2.2 As part of the assessment and ongoing surveillance of product quality, the BBA has:
- agreed with the manufacturer 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 being operated by the manufacturer are being maintained.
- 2.3 The management systems of the manufacturers have been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2008 by Bureau Standards, Metrology and Inspection (BSMI) Taiwan (Certificate 5XDY013-07) and INTECO (Certificate RE 008/01/2010).

# 3 Delivery and site handling

- 3.1 The boards are delivered on wrapped pallets holding up to 150 of the 6 mm thick boards and 100 of the 8 mm, 9 mm and 12 mm thick boards, with a maximum pallet weight of 1200 kg. The boards can be offloaded either by mechanical handling equipment or by manually removing individual boards.
- 3.2 The sheets should be stored flat, under cover, and on a dry, level surface ensuring that loose boards are stacked in a stable manner not exceeding 1 m in height.
- 3.3 Each sheet is marked with the trade name 'No More Ply'.
- 3.4 The boards include crystalline silica and reference should be made to EH40/2002 *Occupational Exposure Limits*, 2002. In particular, when cutting, drilling or sanding in confined areas, dust levels should be controlled using suitable extraction equipment.
- 3.5 No More Ply Megastrength adhesive and No More Ply SBR primer must be stored under dry conditions and protected from frost and high temperatures.
- 3.6 The Certificate holder has taken the responsibility of classifying and labelling the products 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 Sheets.

# **Assessment and Technical Investigations**

The following is a summary of the assessment and technical investigations carried out on No More Ply Tile Backer Boards.

#### **Design Considerations**

#### 4 Use

- 4.1 No More Ply Tile Backer Boards are satisfactory for internal use on walls and floors as an intermediate substrate to ceramic and natural stone tiling.
- 4.2 The boards are suitable as part of a system comprising tiles, waterproof tile adhesive and grout, to form a stable, water-resistant tile substrate in showers, bathrooms and wet areas (excluding shower floors).
- 4.3 Walls and sub-floors to be tiled should comply with the requirements of BS 5385-1: 2009 and BS 5385-3: 2014 respectively, including the provision of movement joints as appropriate. Where necessary, reference should also be made to BS 5385-4: 2009.

#### 5 Practicability of installation

The products are designed to be installed by competent operatives experienced with these types of products.

#### 6 Behaviour in relation to fire



- 6.1 The boards will not adversely affect the fire resistance of the wall on which they are installed.
- 6.2 When tested to BS 476-6: 1989, a sample of the 6 mm thick board gave a fire propagation index (i) of 1.6 and sub-index (i<sub>1</sub>) of 1.4.
- 6.3 When tested to BS 476-7: 1997, a sample of the 6 mm thick board achieved a Class 1 result.
- 6.4 The products are therefore classified as Class 0 or 'low risk' as defined in the various national Building Regulations.
- 6.5 When tested in accordance with EN ISO 1182 : 2010 and EN ISO 1716 : 2010, the 12 mm thick boards are classified as  $A1/A1_{FL}$  in accordance with EN 13501-1 : 2007.
- 6.6 When overlaid with an additional finish, the above classifications may not apply and additional assessment and/or testing may be required.

# 7 Resistance to mechanical damage

- 7.1 When tested in accordance with BBA test methods, a tiled 6 mm thick board satisfied the requirements for a Category I2 opaque vertical component as defined in MOAT No 43 : 1987, Table 3.2.
- 7.2 Test results indicate that the boards can accept, without damage, the normal impacts likely to occur in service.
- 7.3 Wall-mounted fittings should be fixed through the board, into the wall behind, using suitable fixings. The recommendations of the manufacturer should be followed.

# 8 Thermal conductivity

For calculation purposes, the thermal conductivity ( $\lambda$  value) of the 9 mm thick boards should be taken as 0.41 W·m<sup>-1</sup>·K<sup>-1</sup>.

#### 9 Maintenance

As the boards are inaccessible and have suitable durability (see section 10), maintenance is not required. However, any damage occurring before enclosure must be repaired (see section 14).

# 10 Durability



Provided the boards are used and installed in accordance with this Certificate and the Certificate holder's instructions, and are fixed to suitable and durable backgrounds, they should have a life equal to that of the structure onto which they are fixed.

#### Installation

#### 11 General

- 11.1 No More Ply Tile Backer Boards are for installation on internal walls and over existing floors of new and existing buildings, in accordance with the provisions of this Certificate and the Certificate holder's instructions, by suitably experienced personnel.
- 11.2 The boards can be cut easily by scoring with a carbide-tipped knife, and snapping upwards along the score line. The 8 mm, 9 mm and 12 mm thick boards may require several scores before snapping.
- 11.3 Larger irregular shapes and curves can be cut using a jig saw fitted with a tungsten blade. Smaller cuts, eg around pipes, can be made using tile nippers.

#### 12 Procedure

#### Floor installations

#### Wood floors

- 12.1 Existing wooden floors must be firmly screwed down and swept clean.
- 12.2 If the existing floor is uneven, a bedding adhesive may be required. The Certificate holder's advice should be sought for suitable products.
- 12.3 Two small beads of No More Ply Megastrength adhesive, approximately 6 mm wide, are evenly spread around the board to be fixed and the board laid in position.
- 12.4 The board is bedded into the adhesive and screwed down using 8-12 No More Ply self-drilling screws per board. Fixings must be set flush with the surface of the boards and set back approximately 25 mm from the edges and 50 mm from corners.
- 12.5 A bead of No More Ply Megastrength adhesive is applied around the edge of the laid board. Remaining boards are fixed in the same way ensuring that joints between the boards are staggered.

#### Concrete floors

- 12.6 The floor must be swept clean and any deep hollows repaired and/or protrusions removed to form a level surface. The Certificate holder's advice must be sought on suitable repair compounds.
- 12.7 To improve adhesion, the floor and both sides of the boards must be primed with No More Ply SBR primer, diluted one to three parts with water.
- 12.8 The floor is coated with a single-component, rapid-set bedding adhesive and the boards are laid, ensuring the edges are staggered and that a bead of Mega Strength Adhesive is run along the edge of each board before butting the next one up. The Certificate holder's advice should be sought on suitable bedding adhesives.
- 12.9 When the adhesive has set, the boards should be swept clean ready for tiling.

#### Wall installations

#### Timber stud walls

- 12.10 Boards may be installed horizontally or vertically, using No More Ply Megastrength adhesive on the frame members and 8-12,  $38 \text{ mm long}^{(1)}$  No More Ply screws per board. Fixings must be set flush with the surface and set back at least 25 mm from the board edges and 50 mm back from corners.
- (1) Longer screws of the same type may be used where necessary.
- 12.11 Board perimeters and joints must be directly supported by the timber-frame members.
- 12.12 A wet-area sealant complying with the requirements of BS 6213 : 2000 and BS EN ISO 11600 : 2003 is applied at corner junctions of boards and tiles.

# Solid walls

- 12.13 Walls must be dry before priming.
- 12.14 The 6 mm thick boards may be fixed over new and old brickwork, plastered or previously tiled walls using a single-component rapid-set bedding adhesive.
- 12.15 The wall and both sides of the boards must be primed with No More Ply SBR primer, diluted one to three parts with water.

12.16 Adhesive should be evenly dotted around the board, and the board pressed against the wall. In some applications, plugging and screwing may be required to support the boards.

# 13 Tiling

- 13.1 The surface of the primed boards must be clean and dry before tiling commences.
- 13.2 Joints between boards should be tightly butted together and Megastrength adhesive should be used on each joint.
- 13.3 Tiles should be installed and grouted in accordance with the tile manufacturer's instructions, BS 5385-1: 2009, BS 5385-3: 2014 and BS 5385-4: 2009, and conventional good practice.
- 13.4 On non-rigid floors, a flexible adhesive should be used. The advice of the Certificate holder must be sought for suitable products.

# 14 Repair

Under normal conditions of occupancy, the boards are unlikely to suffer damage, but any necessary repairs are carried out by replacing damaged boards and re-tiling.

#### **Technical Investigations**

#### 15 Tests

Tests were carried out and the results assessed to determine:

- water absorption
- resistance to soft-body impact
- effect of humidity and exposure to water
- resistance to hard-body impact
- tensile bond strength to ceramic tiles
- pull-through strength to fixings.

# 16 Investigations

16.1 An evaluation was made of existing data relating to:

- fire propagation to BS 476-6: 1989
- surface spread of flame to BS 476-7: 1997
- thermal conductivity to BS EN 12664: 2001.

16.2 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.

# **Bibliography**

BS 476-6: 1989 Fire tests on building materials and structures — Method of test for fire propagation for products BS 476-7: 1997 Fire tests on building materials and structures — Method of test to determine the classification of the

BS 476-7 : 1997 Fire tests on building materials and structures — Method of test to determine the classification of the surface spread of flame of products

BS 5385-1 : 2009 Wall and floor tiling — Design and installation of ceramic, natural stone and mosaic wall tiling in normal internal conditions — Code of practice

BS 5385-3 : 2014 Wall and floor tiling — Design and installation of internal and external ceramic and mosaic floor tiling in normal conditions — Code of practice

BS 5385-4 : 2009 Wall and floor tiling — Design and installation of ceramic and mosaic tiling in specific conditions — Code of practice

BS 6213: 2000 Selection of construction sealants — Guide

BS EN 12004: 2007 Adhesives for tiles — Requirements, evaluation of conformity, classification and designation

BS EN 12467: 2012 Fibre-cement flat sheets—Product specification and test methods

BS EN 12664 : 2001 Thermal performance of building materials and products — Determination of thermal resistance by means of guarded hot plate and heat flow meter methods — Dry and moist products of medium and low thermal resistance

 ${\tt BS\;EN\;13888:2009\;Grouts\;for\;tiles-Requirements,\,evaluation\;of\;conformity,\,classification\;and\;designation}$ 

BS EN ISO 9001: 2008 Quality management systems — Requirements

 ${\tt BS\ EN\ ISO\ 11600:2003\ Building\ construction-Jointing\ products-Classification\ and\ requirements\ for\ sealants}$ 

EN 13501-1 : 2007 Fire classification of construction products and building elements — Classification using test data from reaction to fire tests

EN ISO 1182 : 2010 Reaction to fire tests for products — Non-combustibility test

EN ISO 1716: 2010 Reaction to fire tests for products — Determination of the gross heat of combustion (calorific value)

MOAT No 43: 1987 UEAtc Directives for Impact Testing Opaque Vertical Building Components

# **Conditions of Certification**

#### 17 Conditions

#### 17.1 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 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.

17.2 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.

17.3 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.

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

17.5 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.

17.6 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.