

**CERTIFICATE TEMPLATE**  
**(STANDARD CERTIFICATE)**

Internal use only:

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**Ecodecking Systems Ltd**

Highgates  
Cambridge Mews  
Rylstone Road  
Eastbourne  
East Sussex BN22 7HN

Tel: 01323 648269  
Fax: 01323 648269  
e-mail: info@ecodeckingsystems.com  
website: www.ecodeckingsystems.com

Agrément Certificate

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**Product Sheet 1**

**ECODECKING ROOFING SYSTEMS**

**NEWTECH ROOFING SLATES**



**PRODUCT SCOPE AND SUMMARY OF CERTIFICATE**

This Certificate relates to [Newtech Roofing Slates](#), recycled, polymer-based, injection-moulded slates for use on conventional pitched timber roof with a rafter pitch of 25° or greater.

AGRÉMENT 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

**THIS IS NOT A VALID AGRÉMENT CERTIFICATE. THE BBA ACCEPTS NO RESPONSIBILITY NOR LIABILITY FOR ANY CONCLUSIONS DRAWN FROM, NOR ANY DECISIONS BASED ON, THIS DOCUMENT.**

- design considerations
- installation guidance
- regular surveillance of production
- formal three-yearly review.

#### KEY FACTORS ASSESSED

**Strength** – the product has adequate strength to resist the loads associated with the installation of the roof (see section 5)

**Behaviour in relation to fire** – the product will enable a roof to be unrestricted under the Building Regulations (see section 6)

**Liquid water penetration** – the product resists the passage of moisture into the building (see section 8)

**Durability** – the product will provide a durable roof covering with a service life in excess of 20 years.(see section 10)

The BBA has awarded this Agrément Certificate to the company named above for the product described herein. The product has been assessed by the BBA as being fit for its intended use provided it is installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of First issue:

Head of Approvals – [Materials](#)

Chief Executive

#### **Regulations**

In the opinion of the BBA, Newtech Roofing Slates, if used in accordance with the provisions of this Certificate, will meet or contribute to meeting the relevant requirements of the following Building Regulations:

#### **[E&W MAP] The Building Regulations 2010 (England and Wales)**

**Requirement: B3(2)**

**Requirement: B4(2)**

Comment:

**Internal fire spread (structure)**

**External fire spread**

A roof incorporating the product has an AA rating and meets the Requirements. See sections 6.1 and 6.2 of this Certificate.

**Requirement: C2(b)**

Comment:

**Resistance to moisture**

A roof incorporating the product meets this Requirement. See sections 7.1 and 7.2 of this Certificate.

**Requirement: Regulation 7 Materials and workmanship**

Comment:

The product is acceptable. See sections 9 and the *Installation* part of this Certificate.

#### **[S MAP] The Building (Scotland) Regulations 2004 (as amended)**

**Regulation: 8(1)(2)**

Comment:

**Fitness and durability of materials and workmanship**

The product can contribute to a construction satisfying this Regulation. See sections 8.1, 8.2 and 9 and the *Installation* part of this Certificate.

<b>Regulation:</b>	<b>9</b>	<b>Building standards – construction</b>
Standard:	2.1	Compartmentation
Standard:	2.2	Separation
Comment:		The product can contribute to satisfying these Standards, with reference to clauses 2.1.15 <sup>(2)</sup> , 2.2.7 <sup>(2)</sup> and 2.2.10 <sup>(1)</sup> respectively. See sections 6.1 and 6.2 of this Certificate.
Standard:	2.6	Spread to neighbouring buildings
Standard:	2.8	Spread from neighbouring buildings
Comment:		A roof incorporating the product is unrestricted under these Standards, with reference to clauses 2.6.4 <sup>(1)(2)</sup> and 2.8.1 <sup>(1)(2)</sup> respectively. See section 6.1 and 6.2 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The product will contribute to a roof satisfying this Standard, with reference to clauses 3.10.1 <sup>(1)(2)</sup> and 3.10.8 <sup>(1)(2)</sup> . See sections 7.1 and 7.2 of this Certificate.
<b>Regulation:</b>	<b>12</b>	<b>Building standards – conversions</b>
Comment:		All comments given for the products under Regulation 9 also apply to this Regulation, with reference to clause 0.12 <sup>(1)(2)</sup> and Schedule 6 <sup>(1)(2)</sup> .

**[NI MAP] The Building Regulations (Northern Ireland) 2000 (as amended)**

<b>Regulation:</b>	<b>B2</b>	<b>Fitness of materials and workmanship</b>
Comment:		The products are acceptable material. See sections 9 and the <i>Installation</i> part of this Certificate.
<b>Regulation:</b>	<b>B3(2)</b>	<b>Suitability of certain materials</b>
Comment:		The product is an acceptable material. See sections 8.1 and 8.2 of this Certificate.
<b>Regulation:</b>	<b>C4(b)</b>	<b>Resistance to ground moisture and weather</b>
Comment:		A roof incorporating the product can satisfy this Regulation. See section 7.1 and 7.2 of this Certificate.
<b>Regulation:</b>	<b>E4(3):</b>	<b>Internal fire spread – Structure</b>
<b>Regulation:</b>	<b>E5(b):</b>	<b>External fire spread</b>
Comment:		A roof incorporating the product is unrestricted under these Regulations. See sections 6.1 and 6.2 of this Certificate.

**Construction (Design and Management) Regulations 2007**

**Construction (Design and Management) Regulations (Northern Ireland) 2007**

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

See sections: 1 *Description* (1.2) of this Certificate.

**Non-regulatory Information**

**NHBC Standards 2011**

NHBC accepts the use of Newtech Roofing Slates, when installed and used in accordance with this Certificate, in relation to *NHBC Standards*, Chapter 7.2 *Pitched roofs*.

## **General**

The slates are manufactured in China and marketed in the UK by the Certificate holder.

## **Technical Specification**

### **1 Description**

1.1 Newtech Roofing Slates are manufactured by injection moulding, recycled plastic compound, fillers and pigments.

1.2 The slates have the nominal characteristics of:

Width (mm)	102, 127, 152, 178, 203, 229, 254 and 304
Length (mm)	455
Thickness (mm)	
top	2
bottom	6
Weight (g)	209, 272, 327, 395, 440, 513, 553 and 860
Installed weight (kg·m <sup>-2</sup> )	<b>QUERY</b>
Colour <sup>(1)</sup>	Deep Red
Shape	Colonial tail design

(1) Slight colour variations may exist between batches. Other colours are available to order.

1.3 The slates are marked and supplied with blind nail holes for fixing in accordance with BS 5534 : 2003.

1.4 Quality control checks are carried out on the incoming materials, during production and on the finished product.

### **2 Delivery and site handling**

2.1 The slates are delivered to site on pallets, protected by a shrink-wrapped polyethylene cover.

2.2 The slates should be stored on a dry level base in a dry protected area away from direct sunlight and possibility of damage. If incorrectly stored the slates can become twisted or curled, the original flatness can be restored by laying them on a flat surface in a warm place.

2.3 The wrapping bears the product name, manufacturing date, raw material lot number, colour and shape and the BBA identification mark incorporating the number of this Certificate.

## **Assessment and Technical Investigations**

The following is a summary of the assessment and technical investigations carried out on Newtech Roofing Slates.

## **Design Considerations**

### **3 Use**

3.1 Newtech Roofing Slates are satisfactory for use on conventional pitched timber roofs with a rafter pitch of 25° and above. It is essential that roofs are designed and constructed to incorporate precautions to prevent moisture penetration and the formation of condensation (eg by adequate ventilation).

3.2 Roofs incorporating the slates should be designed and constructed in accordance with the relevant recommendations of BS 5534 : 2003 and BS 8000-6 : 1990. In particular, the designer should follow the recommendations of BS 5534 : 2003 Clauses 5.1, 5.2, 5.5 and 5.8 of on rain and snow resistance, roof pitch, head-laps and side-laps, structural stability and control of condensation, respectively, and select a construction appropriate to its location paying due attention to design detailing, workmanship and materials used.

#### 4 Practicability of installation

The product is designed to be installed by a competent roofing contractor, experienced with this type of product.

#### 5 Strength

5.1 The slates have adequate resistance to damage during site handling and installation.

5.2 When installed in accordance with BS 5534 : 2003, the slates have adequate resistance to the uniformly distributed loads (ie wind and snow) likely to be encountered. Where high local snow loads may occur, the Certificate holder's advice should be sought and the guidance given in BRE Digest 439 : 1998 *Roof loads due to local drifting of snow* should be followed.

#### 6 Behaviour in relation to fire

ALL MAP 6.1 When tested in accordance with BS 476-3 : 2004, the slates when installed on 11 mm OSB decking with a 6 mm thick Firefly Vulcan cavity barrier achieved an EXT.S.AA rating.

6.2 A roof incorporating the slates is designated AA, and consequently, is unrestricted by the relevant requirements of the national Building Regulations:

England and Wales – Regulation B4(2)

Scotland – Mandatory Standard 2.8, clause 2.8.1

Northern Ireland – Regulation E5(b).

#### 7 Liquid water penetration

ALL MAP 7.1 When tested in accordance with MOAT No 48 : 1991, the water absorption of the slates after 24 hours water immersion was 0.3%.

7.2 When used in conjunction with a Type 1F underlay, the slates will provide a roof covering with satisfactory resistance to the passage of snow or rain.

#### SCOT/NI 8 Maintenance

8.1 Roofs covered with the product should be subject of twice yearly visual inspections to ensure continued performance, as is good practice with all roofs. Any damaged slates should be replaced in accordance with section 14.

8.2 Care is required when carrying out maintenance work on any roof clad in slates and the recommendations contained in BS 5534 : 2003, Clause 6.13 *Installation, Repairs and maintenance*, and BS 8000-6 : 1990, Section 5, Clause 5.2, *Safety* should be followed.

#### 9 Durability

ALL MAP The product will have a service life in excess of 20 years. Extensive exposure to sunlight will cause fading of the surface colouring

#### Installation

## 10 General

10.1 Newtech Roofing Slates are installed in accordance with the Certificate holder's recommendations, BS 5534 : 2003 and BS 8000-6 : 1990 using conventional slating techniques.

10.2 The slates are suitable for use at the minimum rafter pitches given in Table 1.

Table 1 Slate dimensions and minimum rafter pitch

Length (mm)	Width (mm)	Minimum rafter pitch (°)	
		Severe exposure	Moderate exposure
455	304	30 <sup>(1)</sup>	25

(1) The advice of the Certificate holder should be sought in situations of very severe exposure.

10.3 When used on large roof areas, slates should be randomly selected from different batches available to ensure consistent appearance. Any damaged slates must not be installed.

## 11 Cutting

Slates are shaped (for use at eaves, hips, valleys) by scoring with a sharp knife and snapping off the excess. Nail holes must be pre-drilled prior to fixing.

## 12 Health and safety

12.1 Any slate roof should be treated as fragile, and the recommendations given in section 8.2 should be followed. Precautions must be taken to prevent danger to the public from falling, broken or displaced slates.

12.2 The product can be damaged by heat/chemical sources, such as blowtorches and heat guns or chemical strippers and care should be taken when stripping paint from timber at eaves.

## 13 Procedure

13.1 The slates are laid weather-face up and fixed in place using two 9.5 mm diameter copper or stainless steel nails.

13.2 Nails must be tapped rather than driven home and care is required to ensure that nails are not overdriven.

13.3 Each course is laid in a broken bonded pattern with the tails aligned. Courses are nailed in place with a gap of 10 mm minimum between slates.

13.4 Each slate must be seated down correctly with the adjacent slate and the course below. Butt joints between slates must be properly constructed to provide the required degree of weathertightness and dimensional accuracy.

13.5 Where the product is to be used on an existing roof structure, the recommendations contained in BS 5534 : 2003, Section 6, Clause 6.13 and BS 8000-6: 1990, Section 5, Clause 5.1.3 on re-covering, must be followed. Consideration should also be given to the advice contained in BRE Defect Action Sheets DAS 124 : 1988 *Pitched roofs: renovation of older timber roof – re-tiling or re-slating* and DAS 125 : 1988 *Pitched roofs: Re-tiling or re-slating older type timber roofs*.

13.6 Ridge and hip details should be completed in accordance with the Certificate holder's instructions.

## 14 Repair

Damaged slates are replaced in accordance with the Certificate holder's instructions and the relevant sections of BS 5534 : 2003 and BS 8000-6 : 1990.

## **Technical Investigations**

### **15 Tests**

15.1 Tests were carried out to determine:

- dimensions
- mechanical characteristics
- apparent density
- ash content
- water absorption
- dimensional stability
- impact strength.

15.2 Tests were carried out to determine the effects of:

- artificial weathering and colour stability
- prolonged water immersion and heating
- freeze/thaw cycling
- warm water immersion
- heat ageing at elevated temperatures
- heat/rain cycling.

### **16 Investigations**

16.1 An assessment was made of existing data from independent laboratories relating to:

- BS 476-3 : 2004.

16.2 The manufacturing process was examined, including the methods adopted for quality control.

16.3 A user survey was conducted to evaluate performance in use.

## **Bibliography**

BS 476-3 : 2003

BS 5534 : 2003

BS 8000-6 : 1990

MOAT No 48 : 1991

## **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 granted only to the company, firm or person named on the front page — no other company, firm or person may hold or claim any entitlement to this Certificate
- 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 and documents referred to in this Certificate are those that the BBA deems to be relevant at the date of issue or re-issue of this Certificate and include any: Act of Parliament; Statutory Instrument; Directive; Regulation; British, European or International Standard; Code of Practice; manufacturers' instructions; or any other publication or document similar or related to the aforementioned.

17.3 This Certificate will remain valid for an unlimited period provided that the product/system and the manufacture and/or fabrication including all related and relevant 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 In granting this Certificate, the BBA is not responsible for:

- 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
- individual installations of the product/system, including the nature, design, methods and workmanship of or related to the installation
- the actual works in which the product/system is installed, used and maintained, including the nature, design, methods and workmanship of such works.

17.5 Any information relating to the manufacture, supply, installation, use and maintenance 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 and maintained. It does not purport in any way to restate the requirements of the Health & Safety at Work etc Act 1974, or of any other statutory, common law or other duty which may exist at the date 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. In granting this Certificate, the BBA does not accept responsibility to any person or body for any loss or damage, including personal injury, arising as a direct or indirect result of the manufacture, supply, installation, use and maintenance of this product/system.