

Designated by Government
to issue
European Technical
Approvals

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CI/SfB

(47) Nh2

**Agrément
Certificate
No 99/3568**

AHI ROOFING SYSTEM

Système d'étanchéité léger pour toitures
Dachabdichtungen

Product



- THIS CERTIFICATE RELATES TO THE AHI ROOFING SYSTEM, A RANGE OF PREFORMED TILES MADE FROM STEEL COATED WITH ALUMINIUM-ZINC ALLOY. THESE ARE FINISHED WITH EITHER:

A MINERAL-FILLED ACRYLIC FOLLOWED BY STONE GRANULES AND A CLEAR ACRYLIC GLAZE COAT, OR AN ACRYLIC TOPCOAT OF NOMINAL THICKNESS 40 µm.

ACCESSORIES ARE AVAILABLE IN THE SAME FINISH.

- The tiles are installed with a sarking felt or underlay, on timber or steel trusses at minimum pitch angles given in the relevant Detail Sheet. The trusses must be properly secured to the structure.

Regulations

1 The Building Regulations 1991 (as amended) (England and Wales)



The Secretary of State has agreed with the British Board of Agrément the aspects of performance to be used by the BBA in assessing the compliance of roof tiling and profiled sheets with the Building Regulations. In the opinion of the BBA, the AHI Roofing System, if used in accordance with the provisions of this Certificate, will meet or contribute to meeting the relevant requirements.

Requirement: B3(4)

Internal fire spread (structure)

Comment:

The roof space should be subdivided in accordance with this Requirement.

Requirement: B4(2)

External fire spread

Comment:

The system meets this Requirement. See section 12 of these Front Sheets.

Requirement: C4

Resistance to weather and ground moisture

Comment:

The system meets this Requirement. See section 9 of these Front Sheets.

Requirement: Regulation 7

Materials and workmanship

Comment:

The system is acceptable. See section 13 of these Front Sheets.

- Installation is conducted by operatives trained and approved by AHI Roofing Limited.

These Front Sheets must be read in conjunction with the accompanying Detail Sheets, which provide information on specific roof tiles.

2 The Building Standards (Scotland) Regulations 1990 (as amended)

 In the opinion of the BBA, the AHI Roofing System, if used in accordance with the provisions of this Certificate, will satisfy or contribute to satisfying the various Regulations and Technical Standards as listed below.

Regulation:	10	Fitness of materials
Standard:	B2.1	Selection and use of materials and components
Comment:		The system is acceptable.
Regulation:	12	Structural fire precautions
Standard:	D3.5	Junctions between separating or compartment walls and roofs
Comment:		The system can satisfy this Standard. See section 12 of these Front Sheets.
Standard:	D4.1	Concealed spaces (cavities)
Comment:		The roof space should be subdivided in accordance with this Standard.
Standard:	D6.7	Roofs and roofflights
Comment:		The products are unrestricted by this Standard. See section 12 of these Front Sheets.
Regulation:	17	Preparation of sites and resistance to moisture
Standard:	G3.1	Resistance to precipitation
Comment:		The system satisfies this Standard. See section 9 of these Front Sheets.

3 The Building Regulations (Northern Ireland) 1994 (as amended)

 In the opinion of the BBA, the AHI Roofing System, if used in accordance with the provisions of this Certificate, will satisfy or contribute to satisfying the various Building Regulations as listed below.

Regulation:	B2	Fitness of materials and workmanship
Comment:		The system is acceptable. See section 13 of these Front Sheets.
Regulation:	C5	Resistance to ground moisture and weather
Comment:		The system meets the requirements of this Regulation. See section 9 of these Front Sheets.
Regulation:	E6	Internal fire spread — Structure
Comment:		The roof space should be subdivided in accordance with this Regulation. See section 12 of these Front Sheets.
Regulation:	E8	External fire spread
Comment:		The system meets the requirements of this Regulation. See section 12 of these Front Sheets.

4 Construction (Design and Management) Regulations 1994

Information in this Certificate may assist the client, planning supervisor, designer and contractors to address their obligations under these Regulations.

See sections:

13 Durability, 7 Delivery and site handling, 11 Resistance to damage (11.4), 14 General (14.2, 14.4),
15 Procedure (15.6) of these Front Sheets and
1 Description (1.2) of the appropriate Detail Sheet.

Technical Specification

5 Description

- 5.1 AHI roof tiles are manufactured from hot-dip aluminium-zinc (55% Al-Zn) coated steel sheet, coated both sides with an acrylic and pressed into a shape simulating conventional tiles, shakes or shingles. The tiles are finished with either:
a mineral-filled acrylic coating followed by stone granules and a clear acrylic glaze coat, or
an acrylic topcoat of nominal thickness 40 µm.
- 5.2 The steel sheet has an aluminium-zinc coating weight of 150 gm⁻² (including both sides) to specification EN 10215-DX52D+AZ150.
- 5.3 The roof tiles are described in the accompanying Detail Sheets.
- 5.4 A list of accessories with matching decorative surfaces is given in Table 1.

Table 1 Accessory details

Accessory	Roofing system	Length (mm)	Cover (mm)
Standard trim:	All systems except		
Ridge and hip caps	Corona Shake and Oberon	2000	1900
Barge flashings		2000	1900
Apron flashings	All systems	2000	1900
Side flashings	All systems	2000	1900
Barrel trim	All systems except Corona Shake and Oberon	400	370
Shake trim	All systems	400	370

- 5.5 AHI Roofing Limited can supply a guillotine and a tile-bending machine. Other accessories include:
Flat-headed tile-fixing nails 50 mm long by 2.5 mm diameter, galvanized, serrated or annular grooved and painted.

Finishing kit of pigmented acrylic-based emulsion and matching granules for use on vertically driven nail heads and to restore damaged areas.

5.6 Other accessories available but not covered by this Certificate include:

special flashings (available to order)
ventilator tiles — eaves ventilation system
translucent acrylic vision tiles (Decra and Gerard tile profiles only)
gas flue ridge terminal.

6 Manufacture

- 6.1 Acrylic coated, alloy coated coils are slit, guillotined and pressed. The pressed blanks are coated on the weather side with either:
a pigmented acrylic base coat incorporating a non-toxic algicide followed by stone granules and a clear acrylic glaze coat, or
an acrylic topcoat of nominal thickness 40 µm.
After coating the tiles are oven cured.

6.2 Quality control tests are conducted on the raw materials and during the production process. The finished product is tested for adhesion, flexibility and coating hardness.

6.3 Accessories are produced in the same finishes by pressing and coating to the specifications described in section 6.1.

7 Delivery and site handling

- 7.1 Tiles are delivered to site in packs of up to 350, on timber pallets.
- 7.2 During transport the edges and corners of tiles must be protected to prevent damage.
- 7.3 On site the pallets should be stored on a firm, dry base away from the possibility of damage, covered to prevent water ingress, and as close as possible to the building where they are to be installed.

Design Data

8 General

8.1 The AHI Roofing System is suitable for use, in conjunction with a suitable underlay material, as a weatherproof and decorative covering on a conventional timber or steel structure. Minimum roof pitches are given in the appropriate product Detail Sheet.

8.2 To prevent electro-chemical corrosion, direct contact with lead, copper or their alloys should be avoided and lead and copper roofs should not drain onto the installation.

9 Watertightness



The system, with a proper underlay, has a satisfactory resistance to the passage of rain and snow.

10 Strength and stability

10.1 The system has good resistance to the effects of wind suction likely to be met in service.

10.2 The system weighs considerably less than conventional roofing materials, and is securely attached to the structure to prevent wind uplift under adverse conditions.

11 Resistance to damage

11.1 The system will not be deformed by normal maintenance traffic.

11.2 The tiles may be deformed by impact. Damaged tiles can be replaced relatively easily but care should be taken to prevent damage to adjacent tiles. The slight variation in colour between new and existing tiles should be acceptable.

11.3 For maintenance work, roof ladders or crawling boards should be used, but care is still required to prevent damage. Flat rubber-soled shoes must be worn when walking on the roof.

11.4 Small damaged areas may be re-coated using the touch-up kit comprising pigmented acrylic-based emulsion, with matching granules if required.

12 Properties in relation to fire

 When tested to BS 476 : Part 3 : 1958 without an underlay the AHI Roofing System achieved an EXT.S.AA rating.

13 Durability

 The acrylic and aluminium-zinc alloy coatings will protect the steel substrate against corrosion and will give the product an ultimate life in excess of 40 years. Localised maintenance treatment may be necessary within 30 years to restore the appearance where chippings may have been lost or the coating eroded.

Installation

14 General

14.1 The standard of installation should comply with the requirements of BS 8000 : Part 6 : 1990(1997).

14.2 Installation must be conducted by operatives trained and approved by AHI Roofing Limited.

14.3 AHI roof tiles can be installed at all temperatures likely to be met in roofing works. However, at temperatures below -10°C extra care is required, particularly when driving nails and cutting and bending tiles.

14.4 The roof construction must be adequate to resist the loadings detailed in BS 6399 : Part 1 : 1996 and BS 6399 : Part 2 : 1997. The maximum permitted rafter or roof truss spacing for each batten size is given in Table 2. The roof construction should be in accordance with the relevant requirements of BS 5534 : Part 1 : 1996.

Table 2 Permitted rafter or roof truss spacing

Tile profile batten size (mm)	Maximum truss spacing (mm)
38 x 25	450
50 x 25	600
50 x 38	900
50 x 50	1200

14.5 The roof space must be adequately ventilated in accordance with BS 5250 : 1989(1995).

14.6 The underlay must be to BS 747 : 1994, Type 1F, or covered by an Agrément Certificate and installed in accordance with that Certificate.

15 Procedure

15.1 Where the rafters/trusses are spaced at 900 mm or 1200 mm centres, polypropylene or nylon tape is nailed to the rafters to support the underlay.

15.2 Battens are laid over the underlay and roof trusses.

15.3 Rafters are securely tied to the building structure with, for example, galvanized steel straps complying with BS 5628 : Part 3 : 1985.

15.4 Where timber boarding is laid on the rafters, a timber counter-batten should be installed in accordance with BS 5534 : Part 1 : 1997.

15.5 Tiles are laid on to the battens with the upper and lower edges interlocking and with side laps of one small corrugation. Fixing is by nailing through the small corrugations adjacent to the battens on the upper and lower interlocking edges using 50 mm long by 2.5 mm diameter nails as shown in the appropriate Detail Sheet.

15.6 Tiles are preferably cut and formed with a guillotine and a tile-bending machine, but small quantities may be cut with tin snips or sheet metal cutters, and bent by hand.

15.7 The accessories are cut, formed and installed as necessary to complete the installation.

Technical Investigations

The following is a summary of the technical investigations carried out on the AHI Roofing System.

16 Tests

16.1 Assessments were made of tests carried out by independent laboratories to determine:

- durability of tiles
- strength of tiles
- resistance to rain penetration
- resistance to impact damage
- corrosion resistance
- watertightness
- effect of condensation
- loading
- sound properties during rain
- resistance to wind uplift.

16.2 Tests were carried out by the BBA to determine:

- resistance to bending
- resistance to thermal effects
- inter-coat adhesion
- resistance to salt spray
- resistance to artificial weathering
- life of fixings.

17 Other investigations

17.1 As part of the investigations undertaken during the assessment work leading to the issue of BRANZ Appraisal Certificate No 314, the manufacturing process was examined and details were obtained of the quality controls conducted on the raw materials and finished products, the raw material specifications and method of manufacture.

17.2 An assessment was made of independent investigations to BS 476 : Part 3 : 1958.

17.3 Visits were made to sites in progress to assess the practicability of installation and ease of repair.

17.4 The technical data contained in BRANZ Appraisal Certificate No 314 was examined in the context of UK practice.

17.5 Relevant data from the BBA's previous assessments of Decramastic Lightweight Roofing System, Decracylic Lightweight Roofing System, Decra Roof Tiles and Gerard Roofing System, the subjects of Agrément Certificates Nos 78/582, 86/1641/C, 90/2559/C and 86/1635, respectively, were examined in the context of UK construction practice.

Additional Information

AHI Roofing Limited have been assessed and registered as meeting the requirements of AS/NZS ISO 9001 : 1994 for the design, manufacture and supply of steel-based acrylic and chip-coated roofing products and accessories by Telarc Limited (Registration No 739).

Bibliography

BS 476 *Fire tests on building materials and structures*
Part 3 : 1958 *External fire exposure roof test*

BS 747 : 1994 *Specification for roofing felts*

BS 5250 : 1989(1995) *Code of practice for control of condensation in buildings*

BS 5534 *Code of practice for slating and tiling*
Part 1 : 1997 *Design*

BS 5628 *Code of practice for use of masonry*
Part 3 : 1985 *Materials and components, design and workmanship*

BS 6399 *Loading for buildings*
Part 1 : 1996 *Code of practice for dead and imposed loads*
Part 2 : 1997 *Code of practice for wind loads*

BS 8000 *Workmanship on building sites*
Part 6 : 1990(1997) *Code of practice for slating and tiling of roofs and claddings*

BS EN 10215 : 1995 *Continuously hot-dip aluminium-zinc (AZ) coated steel strip and sheet – Technical delivery conditions*

Conditions of Certification

18 Conditions

18.1 This Certificate:

- (a) relates only to the product that is described, installed, used and maintained as set out in this Certificate;
- (b) is granted only to the company, firm or person identified on the front cover — no other company, firm or person may hold or claim any entitlement to this Certificate;
- (c) has to be read, considered and used as a whole document — it may be misleading and will be incomplete to be selective;
- (d) is copyright of the BBA.

18.2 References in this Certificate to any Act of Parliament, Regulation made thereunder, Directive or Regulation of the European Union, Statutory Instrument, Code of Practice, British Standard, manufacturers' instructions or similar publication, shall be construed as references to such publication in the form in which it was current at the date of this Certificate.

18.3 This Certificate will remain valid for an unlimited period provided that the product and the manufacture and/or fabricating process(es) thereof:

- (a) are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA;
- (b) continue to be checked by the BBA or its agents; and
- (c) are reviewed by the BBA as and when it considers appropriate.

18.4 In granting this Certificate, the BBA makes no representation as to:

- (a) the presence or absence of any patent or similar rights subsisting in the product or any other product;
- (b) the right of the Certificate holder to market, supply, install or maintain the product; and
- (c) the nature of individual installations of the product, including methods and workmanship.

18.5 Any recommendations relating to the use or installation of this product which are contained or referred to in this Certificate are the minimum standards required to be met when the product is used. They do 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 or in the future; nor is conformity with such recommendations to be taken as satisfying the requirements of the 1974 Act or of any present or future 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 installation and use of this product.



In the opinion of the British Board of Agrément, the AHI Roofing System is fit for its intended use provided it is installed, used and maintained as set out in this Certificate. Certificate No 99/3568 is accordingly awarded to AHI Roofing Limited.

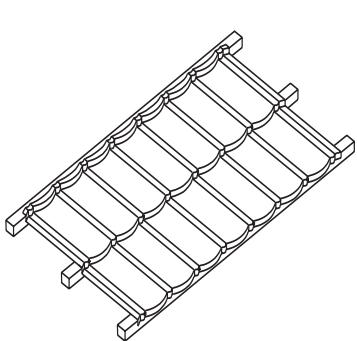
On behalf of the British Board of Agrément

Director

Date of issue: 25th March 1999

DECRA TILES

Product



- THIS DETAIL SHEET RELATES TO DECRA TILES, PREFORMED ACRYLIC COATED, 55% Al-Zn COATED STEEL TILES WHICH SIMULATE SEVEN CONVENTIONAL ROOFING TILES.
- Decra Tiles have a mineral-filled acrylic coating followed by stone granules and a clear acrylic glaze coat, and are available in 11 colours with a steel thickness of 0.4 mm.
- The tiles may be installed on conventional steel or timber structures with a minimum pitch of 12°.

This Detail Sheet must be read in conjunction with the Front Sheets, which give the product's position regarding the Building Regulations and general information relating to the products, and the Conditions of Certification, respectively.

Technical Specification

1 Description

1.1 Decra Tiles are pressed from acrylic coated 55% Al-Zn coated steel sheet to a shape simulating seven conventional tiles (see Figure 1). The tiles are available in a steel thickness of 0.4 mm and have a mineral filled acrylic coating followed by stone granules and a clear acrylic glaze coat (see Figure 2).

1.2 The tiles have dimensions of:

thickness of sheet (mm)	0.4
length of sheet (mm)	1320
cover length (mm)	1257
width of sheet (mm)	410
cover width (mm)	370
module width (mm)	180
upstand (mm)	25
minimum side lap (mm)	65
weight of tile (kg)	3.2
weight of tiled roof (kgm ⁻²)	7.0
coverage per tile (m ²)	0.46

1.3 The tiles have a downturned lower edge and an upturned upper edge for interlocking purposes (see Figure 3).

1.4 Adjacent tiles are overlapped with side laps of 65 mm (one corrugation) (see Figure 4).

1.5 Fixing is by nailing through the small corrugations on the upper and lower edges into each batten using four 50 mm long by 2.5 mm diameter Decra nails per tile (see Figures 1, 5 and 6).

1.6 The tiles are available in 11 standard colours:

terracotta	silver grey	garnet
charcoal grey	coffee brown	ember
teak	weathered timber	onyx
sea green	Arctic blue	

Figure 1 Decra Tiles and nailing points

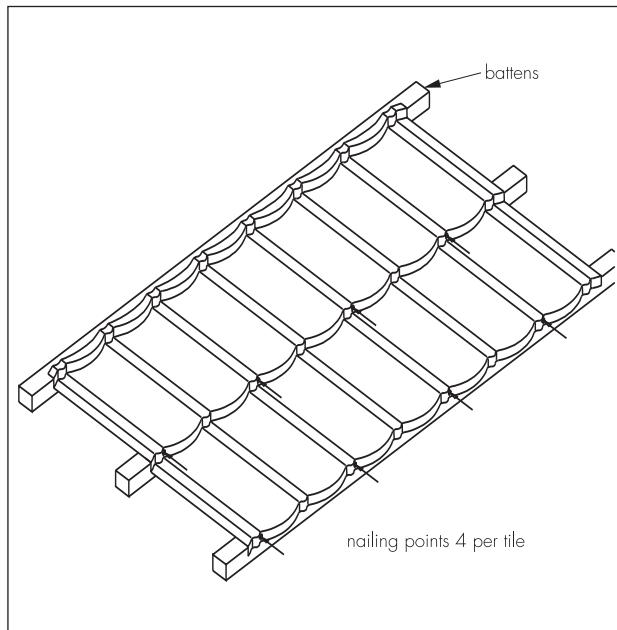


Figure 2 Section through Decra Tile

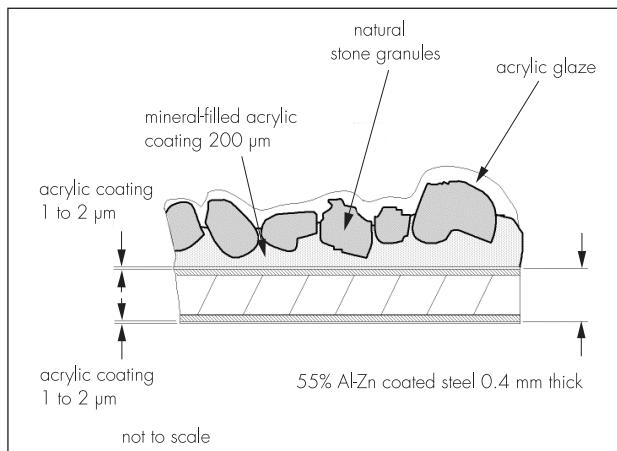


Figure 3 Spacing details

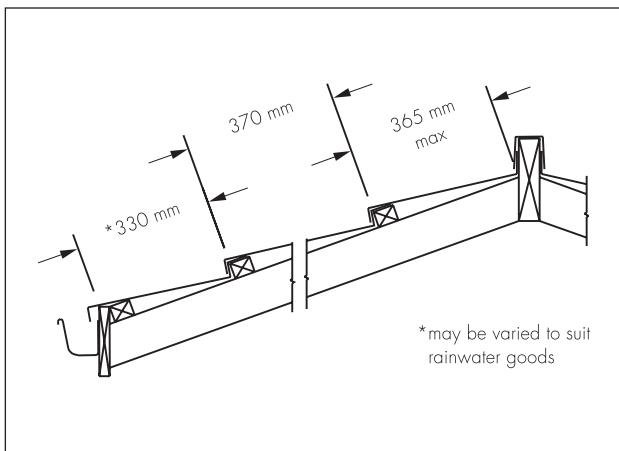


Figure 4 Overlap details

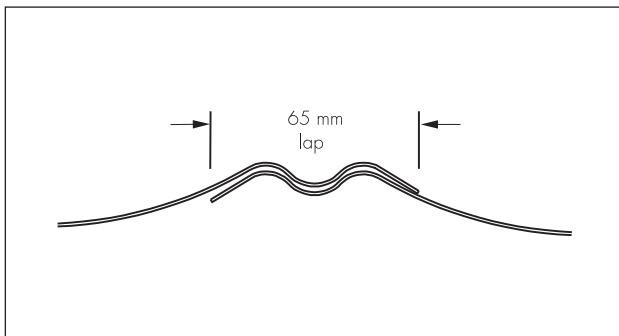


Figure 5 Overlap and nailing points

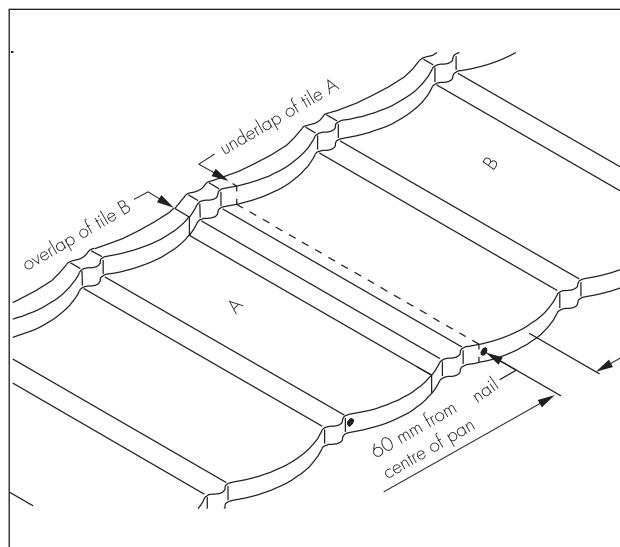
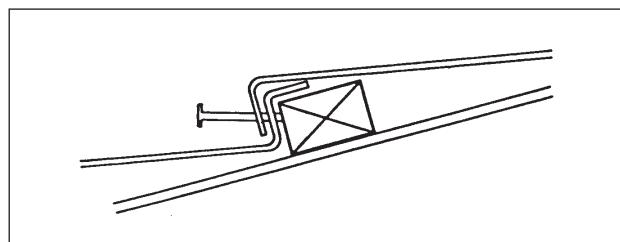


Figure 6 Fixing details



On behalf of the British Board of Agrément

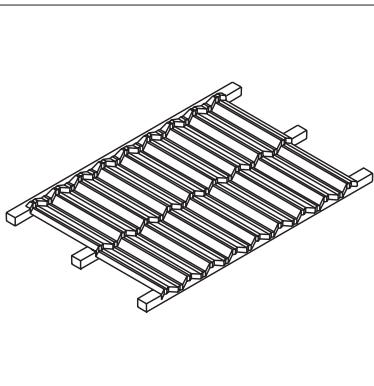
Date of issue: 25th March 1999



Director

GERARD TILES

Product



- THIS DETAIL SHEET RELATES TO GERARD TILES, PREFORMED ACRYLIC COATED, 55% Al-Zn COATED, STEEL TILES WHICH SIMULATE EIGHT CONVENTIONAL ROOFING TILES.
- Gerard Tiles have a mineral-filled acrylic coating followed by stone granules and a clear acrylic glaze coat, and are available in 11 colours with a steel thickness of 0.4 mm.
- The tiles may be installed on conventional steel or timber structures with a minimum pitch of 12°.

This Detail Sheet must be read in conjunction with the Front Sheets, which give the product's position regarding the Building Regulations and general information relating to the products, and the Conditions of Certification, respectively.

Technical Specification

1 Description

1.1 Gerard Tiles are pressed from acrylic coated 55% Al-Zn coated steel sheet to a shape simulating eight conventional tiles (see Figure 1). The tiles are available in a steel thickness of 0.4 mm and have a mineral filled acrylic coating followed by stone granules and a clear acrylic glaze coat (see Figure 2).

1.2 The tiles have dimensions of:

thickness of sheet (mm)	0.4
length of sheet (mm)	1320
cover length (mm)	1270
width of sheet (mm)	410
cover width (mm)	370
module width (mm)	158
upstand (mm)	25
minimum side lap (mm)	65
weight of tile (kg)	3.2
weight of tiled roof (kgm ⁻²)	6.9
coverage per tile (m ²)	0.47

1.3 The tiles have a downturned lower edge and an upturned upper edge for interlocking purposes (see Figure 3).

1.4 Adjacent tiles are overlapped with side laps of 55 mm (see Figure 4).

1.5 Fixing is by nailing through the small corrugations on the upper and lower edges into each batten using four 50 mm long by 2.5 mm diameter Gerard nails per tile (see Figures 1, 5 and 6).

1.6 The tiles are available in 11 standard colours:

charcoal	forest green	chestnut
cedar	redwood	Spanish red
black opal	slate	granite
bracken	Atlantic blue	

Figure 1 Gerard Tiles and nailing points

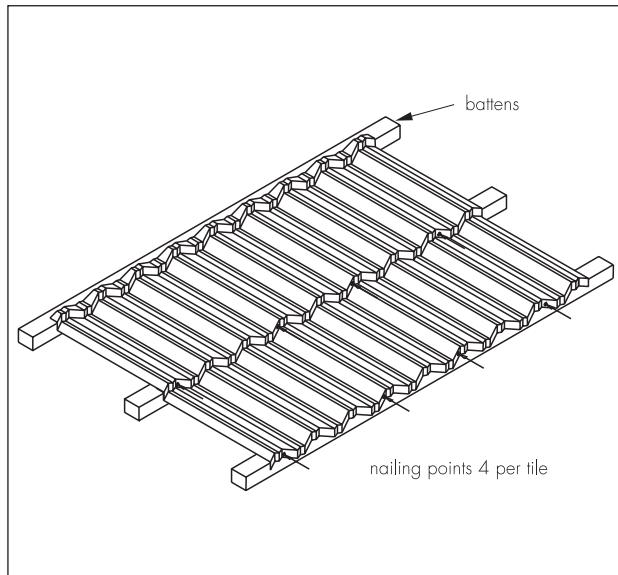


Figure 2 Section through Gerard Tile

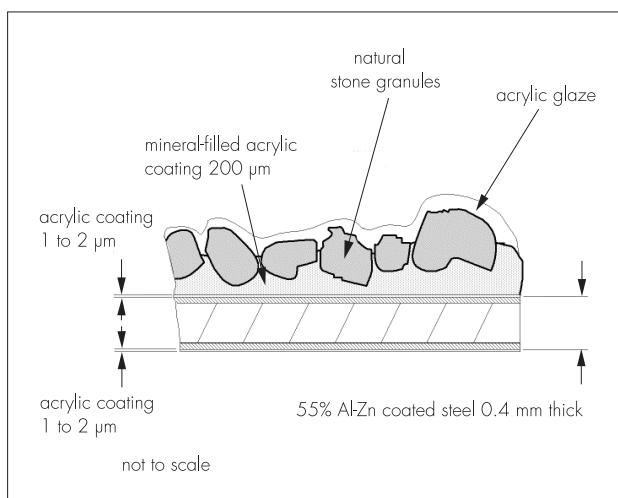


Figure 3 Spacing details

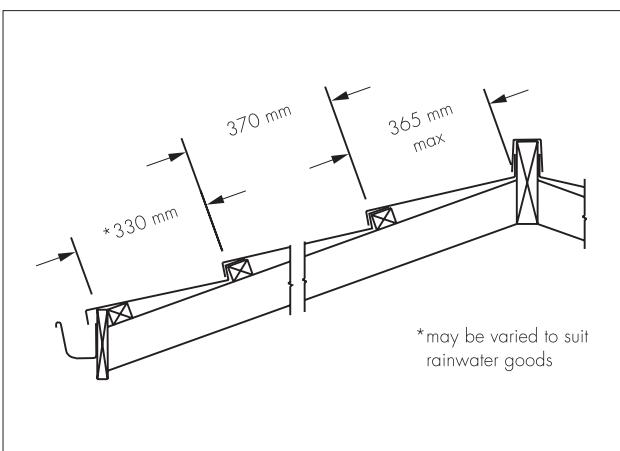


Figure 4 Overlap details

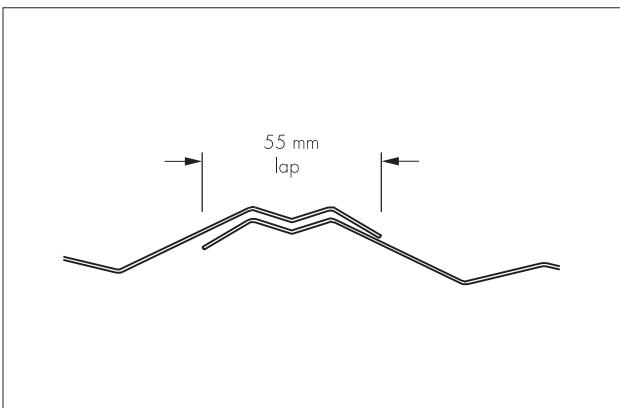


Figure 5 Overlap and nailing paints

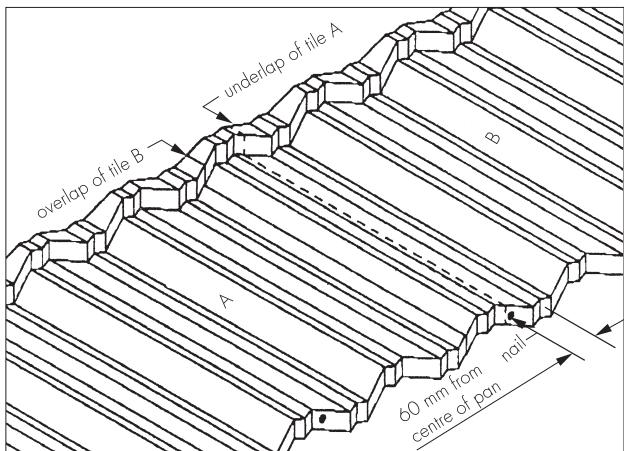
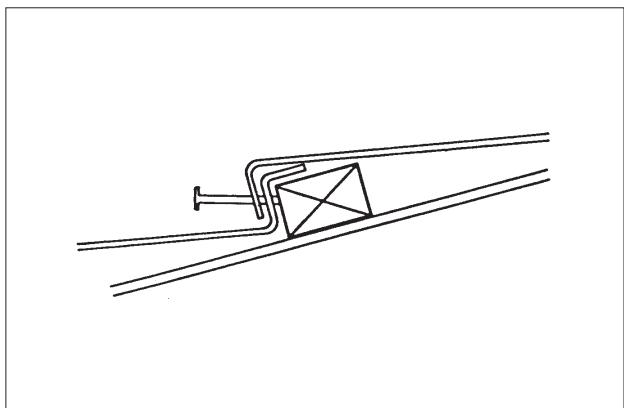


Figure 6 Fixing details



On behalf of the British Board of Agrément

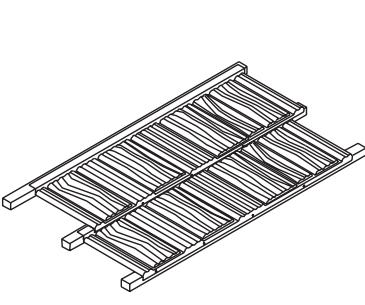
Date of issue: 25th March 1999

P.C. Hearn et al.

Director

CORONA SHAKES

Product



- THIS DETAIL SHEET RELATES TO CORONA SHAKES, PREFORMED ACRYLIC COATED, 55% Al-Zn COATED, STEEL TILES WHICH SIMULATE CONVENTIONAL ROOFING SHAKES.

- Corona Shakes have a mineral-filled acrylic coating followed by stone granules and a clear acrylic glaze coat and are available in seven colours and with a steel thickness of 0.4 mm.
- The shakes may be installed on conventional steel or timber structures with a minimum pitch of 15°.
- Also marketed as DECRA SHAKES and GERARD SHAKES.

This Detail Sheet must be read in conjunction with the Front Sheets, which give the product's position regarding the Building Regulations and general information relating to the product, and the Conditions of Certification, respectively.

Technical Specification

1 Description

1.1 Corona Shakes are pressed from acrylic coated, 55% Al-Zn coated steel sheet to a shape simulating conventional roofing shales (see Figure 1). The shales are available in a steel thickness of 0.4 mm and have a mineral filled acrylic coating followed by stone granules and a clear acrylic glaze coat (see Figure 2).

1.2 The shales have the dimensions of:

thickness of sheet (mm)	0.4
length of sheet (mm)	1310
cover length (mm)	1250
width of sheet (mm)	410
cover width (mm)	370
upstand (mm)	25
minimum side lap (mm)	55
weight of shale (kg)	3.2
weight of shale roof (kgm ⁻²)	7.0
coverage per shake (m ²)	0.46

1.3 The shales have a downturned lower edge and an upturned upper edge for interlocking purposes (see Figure 3).

1.4 Adjacent shales are overlapped with side laps of 55 mm (one corrugation) (see Figure 4). The shales should always be laid broken bond.

1.5 Fixing is by nailing through the small corrugations on the upper and lower edges into each batten using four 50 mm long by 2.5 mm diameter nails per shake (see Figures 1, 5 and 6).

1.6 The shales are available in seven standard colours:

sable	cedarstone	greenstone
pepperstone	ashwood	teakstone redstone

Figure 1 Corona Shakes and nailing points

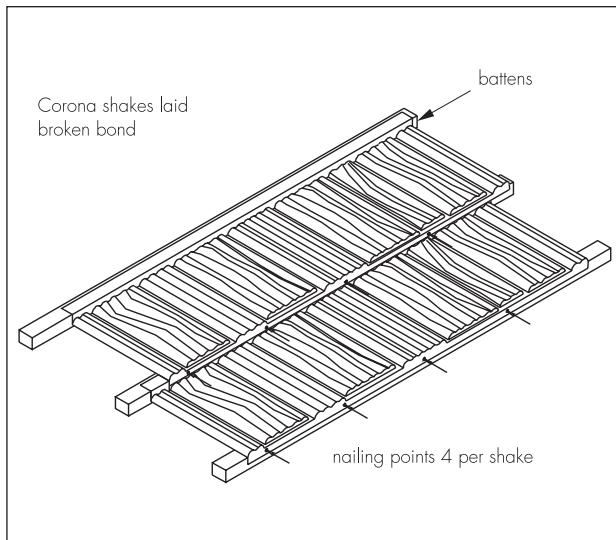


Figure 2 Section through Corona Shake

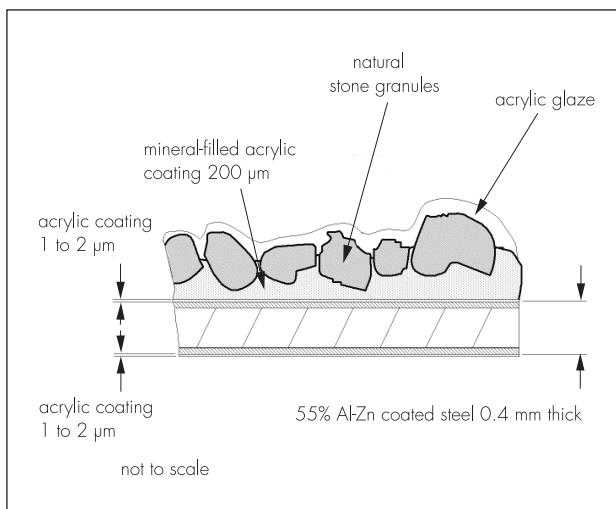


Figure 3 Spacing details

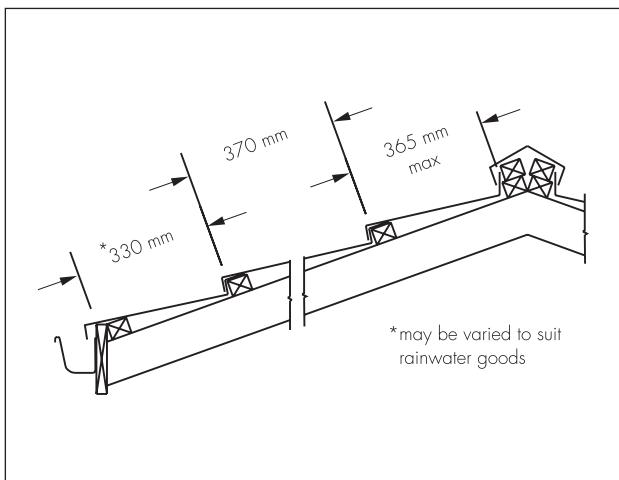


Figure 5 Overlap and nailing points

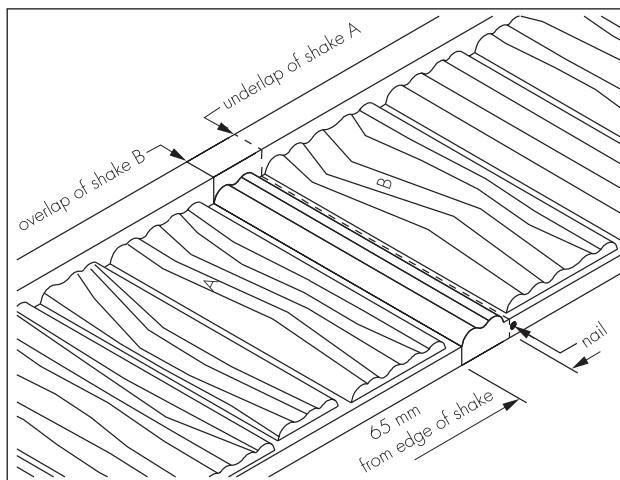


Figure 4 Overlap details

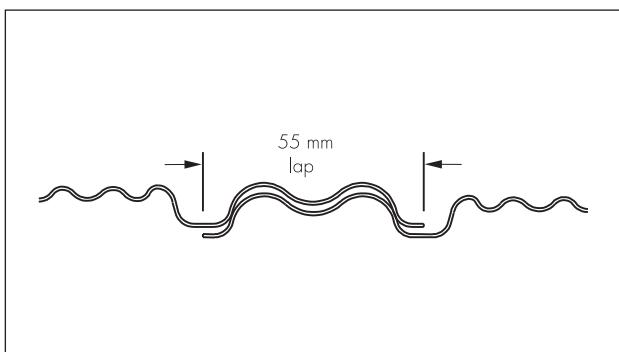
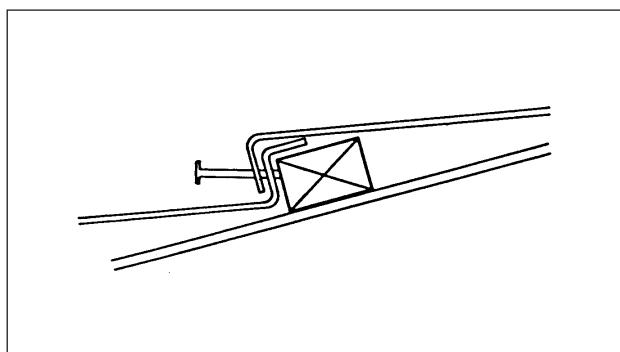


Figure 6 Fixing details



On behalf of the British Board of Agrément

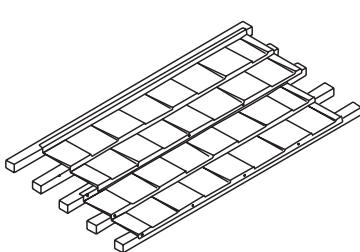
Date of issue: 25th March 1999


P.C. Hearn etc

Director

OBERON SHINGLES

Product



- THIS DETAIL SHEET RELATES TO OBERON SHINGLES, PREFORMED ACRYLIC COATED, 55% Al-Zn COATED, STEEL TILES WHICH SIMULATE CONVENTIONAL ROOFING SHINGLES.

- Oberon Shingles have a mineral-filled acrylic coating followed by stone granules and a clear acrylic glaze coat, and are available in four colours with a steel thickness of 0.4 mm.
- The shingles may be installed on conventional steel or timber structures with a minimum pitch of 15°.
- Also marketed as DECRA SHINGLES and GERARD SHINGLES.

This Detail Sheet must be read in conjunction with the Front Sheets, which give the product's position regarding the Building Regulations and general information relating to the product, and the Conditions of Certification, respectively.

Technical Specification

1 Description

1.1 Oberon Shingles are pressed from acrylic coated 55% Al-Zn coated steel sheet to a shape simulating conventional roofing shingles (see Figure 1). The shingles are available in a steel thickness of 0.4 mm and have a mineral filled acrylic coating followed by stone granules and a clear acrylic glaze coat (see Figure 2).

1.2 The shingles have the dimensions:

thickness of sheet (mm)	0.4
length of sheet (mm)	1310
cover length (mm)	1230
width of sheet (mm)	360
cover width (mm)	320
upstand (mm)	25
minimum side lap (mm)	60
weight of shingle (kg)	2.8
weight of shingle roof (kgm ⁻²)	7.0
coverage per shingle (m ²)	0.39

1.3 The shingles have a downturned lower edge and an upturned upper edge for interlocking purposes (see Figure 3).

1.4 Adjacent shingles are overlapped with side laps of 60 mm to 80 mm (see Figure 4). The shingles should always be laid broken bond.

1.5 Fixing is by nailing through the small corrugations on the upper and lower edges into each batten using five 50 mm long by 2.5 mm diameter nails per shingle (see Figures 1, 5 and 6).

1.6 The shingles are available in four standard colours:

eclipse	bark
sunset	ravine

Figure 1 Oberon shingles and nailing points

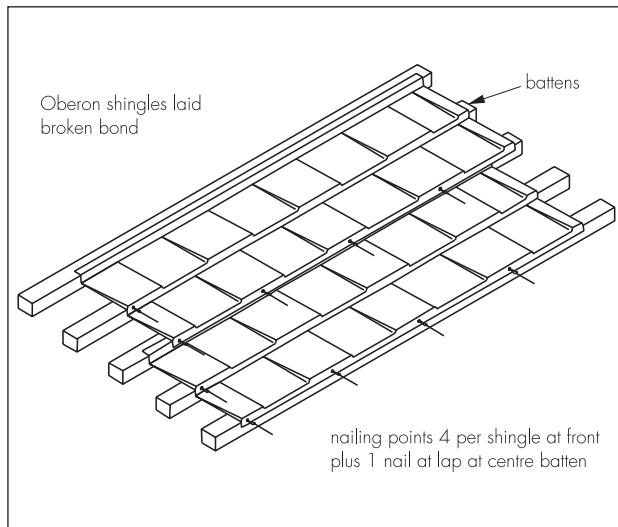


Figure 2 Section through Oberon Shingle

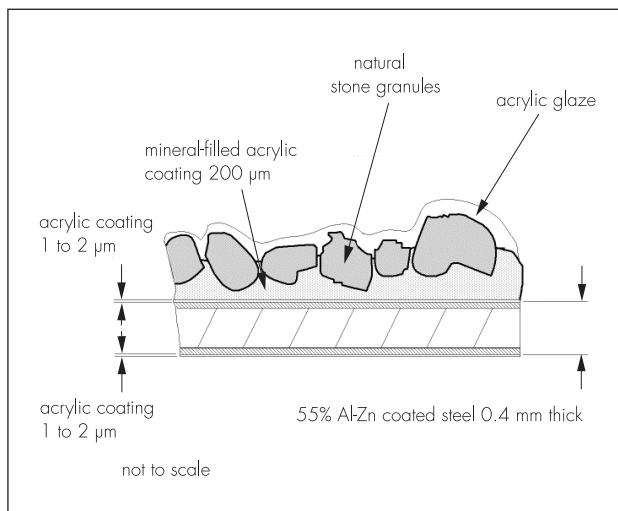


Figure 3 Spacing details

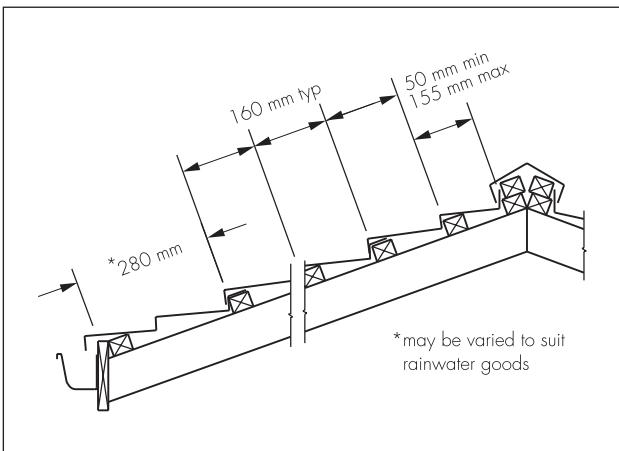


Figure 4 Overlap details

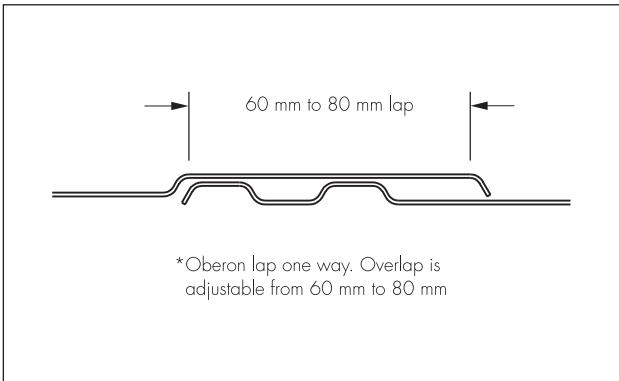


Figure 5 Overlap and nailing points

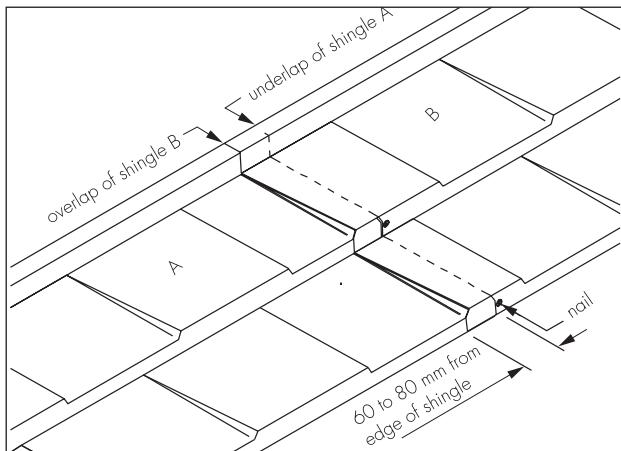
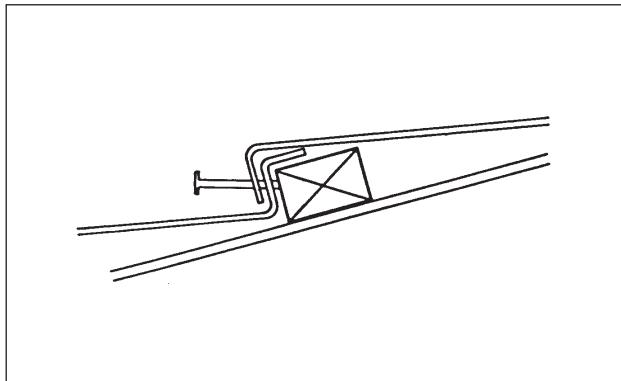


Figure 6 Fixing details



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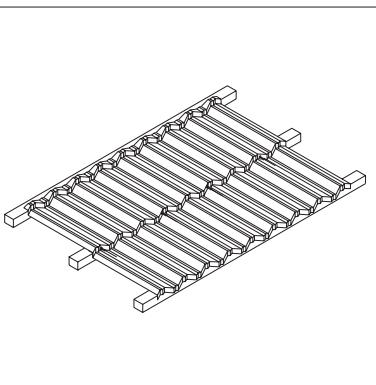
Date of issue: 25th March 1999


Director



GERARD SATINCOTE TILES

Product



- THIS DETAIL SHEET RELATES TO GERARD SATINCOTE TILES, PREFORMED ACRYLIC COATED, 55% Al-Zn COATED, STEEL TILES WHICH SIMULATE EIGHT CONVENTIONAL ROOFING TILES.
 - Gerard Satincote Tiles have an acrylic topcoat and are available in 12 colours with a steel thickness of 0.4 mm.
 - The tiles may be installed on conventional steel or timber structures with a minimum pitch of 12°.

This Detail Sheet must be read in conjunction with the Front Sheets, which give the product's position regarding the Building Regulations and general information relating to the products, and the Conditions of Certification, respectively.

Technical Specification

1 Description

1.1 Gerard Satincote Tiles are pressed from acrylic coated 55% Al-Zn coated steel sheet to a shape simulating eight conventional tiles (see Figure 1). The tiles are available in a steel thickness of 0.4 mm and are finished with an acrylic topcoat of nominal thickness 40 µm. The underside of the tile is protected by an acrylic coating of thickness 1 µm to 2 µm

1.2 The tiles have dimensions of:

thickness of sheet (mm)	0.4
length of sheet (mm)	1320
cover length (mm)	1270
width of sheet (mm)	410
cover width (mm)	370
module width (mm)	158
upstand (mm)	25
minimum side lap (mm)	65
weight of tile (kg)	3.2
weight of tiled roof (kgm^{-2})	6.9
coverage per tile (m^2)	0.47

1.3 The tiles have a downturned lower edge and an upturned upper edge for interlocking purposes (see Figure 2).

1.4 Adjacent tiles are overlapped with side laps of 55 mm (see Figure 3).

1.5 Fixing is by nailing through the small corrugations on the upper and lower edges into each batten using four 50 mm long by 2.5 mm diameter Gerard nails per tile (see Figures 1, 4 and 5).

1.6 The tiles are available in 12 standard colours:		
ebony	jade	Spanish clay
tempest	russet	mist green
willow	larch green	driftwood
marlin blue	pewter	aztec.

Figure 1 Gerard Satincote Tiles and nailing points

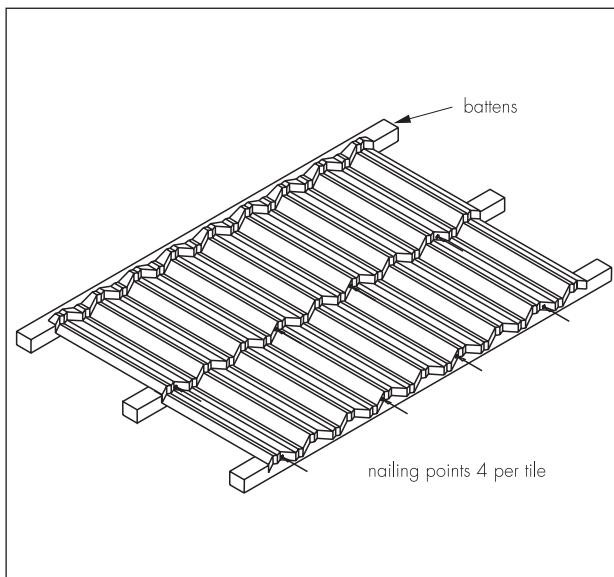


Figure 2 Spacing details

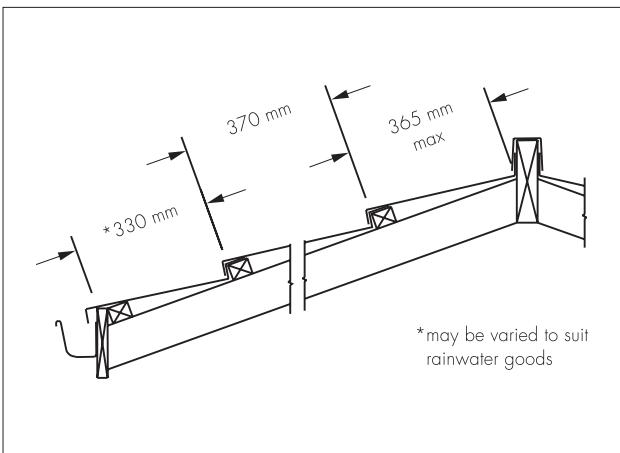


Figure 3 Overlap details

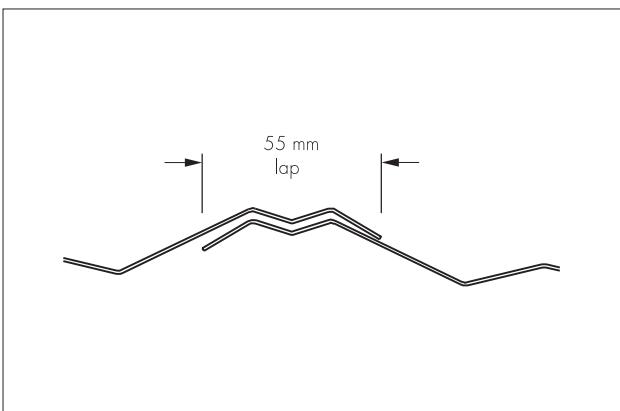


Figure 4 Overlap and nailing paints

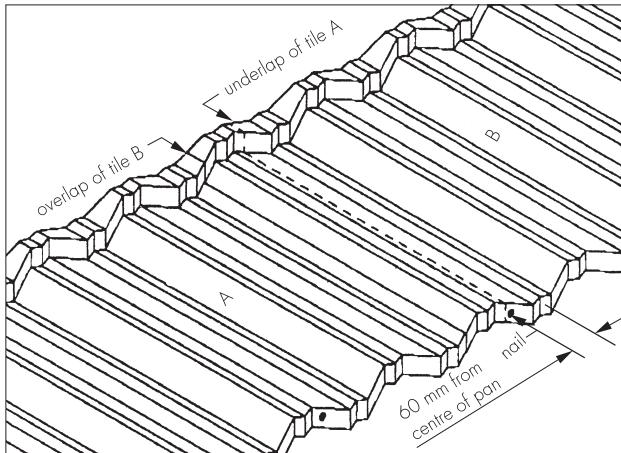
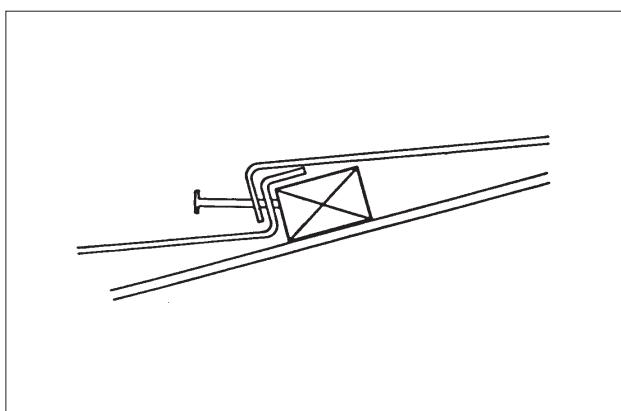


Figure 5 Fixing details



On behalf of the British Board of Agrément

Date of issue: 23rd December 1999

Chief Executive