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Agrément Certificate
06/4382
Product Sheet 1

PROBEAD RENDER BEADS

PROBEAD EXTERNAL RENDER BEADS

PRODUCT SCOPE AND SUMMARY OF CERTIFICATE

This Certificate relates to ProBead External Render Beads, a range of coloured PVC-U extrusions for use with render on new or existing buildings.

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



KEY FACTORS ASSESSED

Structural stability — the products provide satisfactory fixing and support to the applied render and adequate resistance to mechanical damage.

Performance in relation to fire — the products would not be classified 'non-combustible' when tested in accordance with BS 476-4 : 1970 but, in the opinion of the BBA, will not introduce an additional hazard in respect of the behaviour in fire of the rendered surface.

Durability — the products are formed from durable materials and, while there will be some colour loss, will perform adequately as a support for external rendering for a period of at least 25 years.

The BBA has awarded this Agrément 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

Stuart Sadler
Head of Approvals — Materials

Greg Cooper
Chief Executive

Date of Third issue: 21 December 2010

Originally certificated on 25 October 2006

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 are advised to check the validity and latest issue number of this Agrément Certificate by either referring to the BBA website or contacting the BBA direct.

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Regulations

In the opinion of the BBA, ProBead External Render Beads, if used in accordance with the provisions of this Certificate, will meet or contribute to meeting the relevant requirements of the following Building Regulations:



The Building Regulations 2010 (England and Wales)

Requirement: B4(1)	External fire spread
Comment:	The products will not adversely affect the fire properties of a wall in which they are incorporated. See section 6 of this Certificate.
Requirement: Regulation 7	Materials and workmanship
Comment:	The products are acceptable materials. See section 8.1 and the <i>Installation</i> part of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation: 8(1)	Fitness and durability of materials and workmanship
Comment:	The products can contribute to a construction satisfying this Regulation. See section 8.1 and the <i>Installation</i> part of this Certificate.
Regulation: 9	Building standards – construction
Standard: 2.6	Spread to neighbouring buildings
Standard: 2.7	Spread on external walls
Comment:	The products are not classified as 'non-combustible' and are therefore restricted by these Standards, with reference to clauses 2.6.4 ⁽¹⁾⁽²⁾ , 2.6.5 ⁽¹⁾ , 2.6.6 ⁽²⁾ and 2.7.1 ⁽¹⁾⁽²⁾ . See section 6 of this Certificate.
Regulation: 12	Building standards – conversions
Comment:	All comments given for the products under Regulation 9 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) 2000 (as amended)

Regulation: B2	Fitness of materials and workmanship
Comment:	The products are acceptable materials. See section 8.1 and the <i>Installation</i> part of this Certificate.
Regulation: E5(a)	External fire spread
Comment:	The products will not adversely affect the fire properties of a wall in which they are incorporated. See section 6 of this Certificate.

Construction (Design and Management) Regulations 2007

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

In the opinion of the BBA, there is no information in this Certificate which relates to the obligations of the client, CDM co-ordinator, designer and contractors under these Regulations.

Non-regulatory Information

NHBC Standards 2010

In the opinion of the BBA, the use of ProBead External Render Beads, in relation to this Certificate, is not subject to the requirements of these Standards.

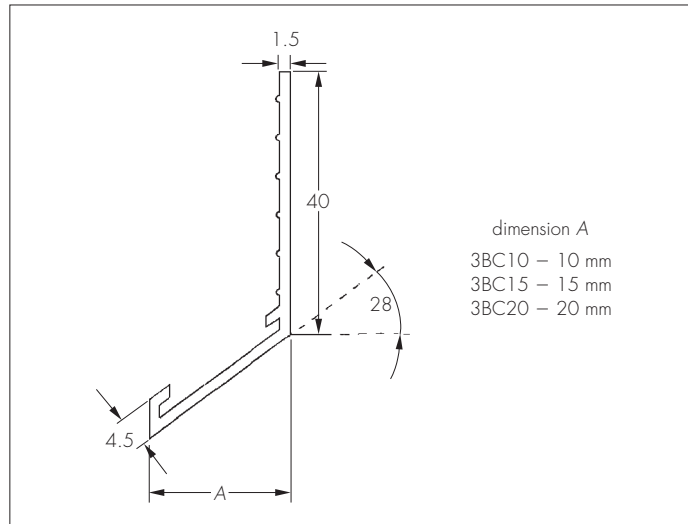
1 Description

1.1 ProBead External Render Beads are PVC-U extrusions designed for use with render in external applications. The back plates incorporate oval holes and a ribbed surface, providing a key for the render.

1.2 The available types are:

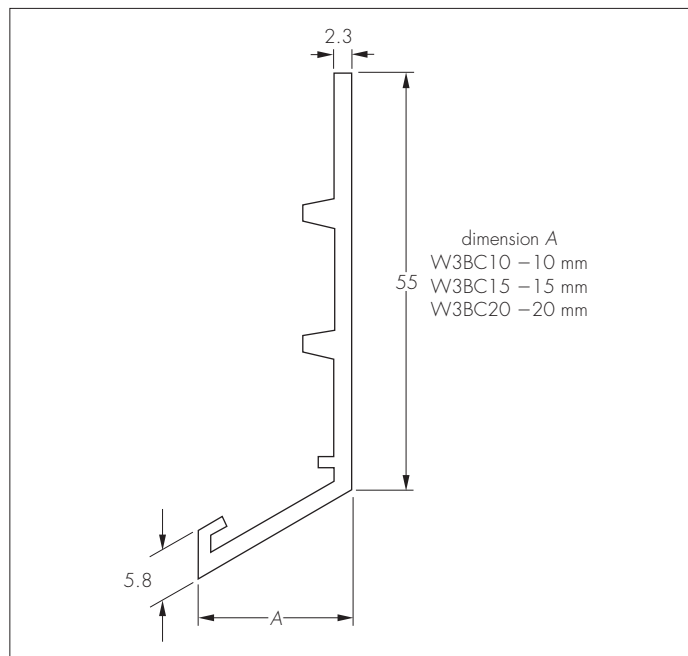
- Standard bellcast beads (3BC10, 3BC15 and 3BC20) — for forming a reinforced stop (or bellcasting) at the lower edge of external rendering (see Figure 1)

Figure 1 Standard bellcast beads (all dimensions in mm)



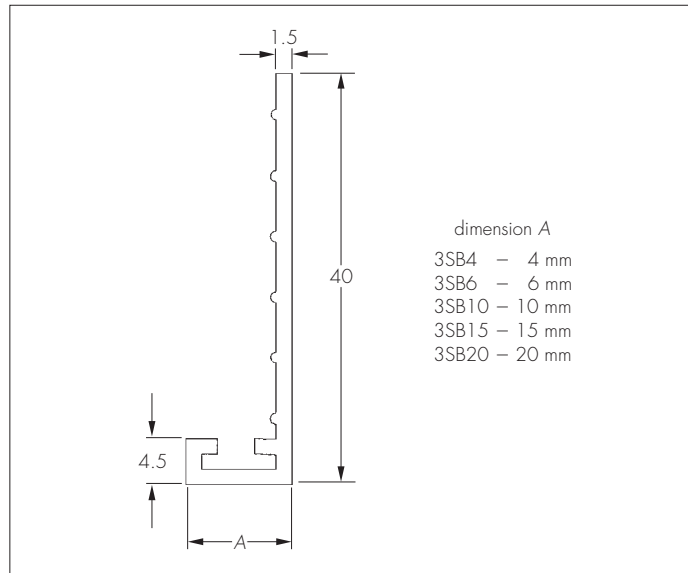
- Wide bellcast beads (W3BC10, W3BC15 and W3BC20) — for forming a reinforced stop (or bellcasting) at the lower edge of external rendering (see Figure 2)

Figure 2 Wide bellcast beads (all dimensions in mm)



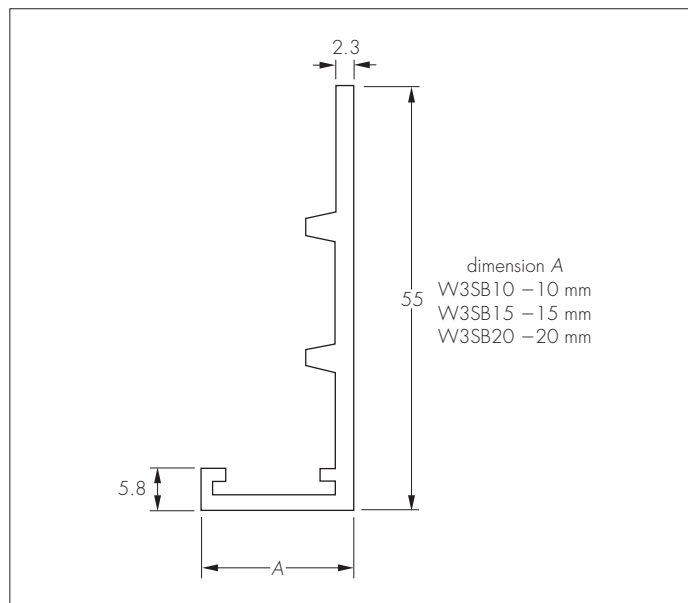
- Standard stop beads (3SB4, 3SB6, 3SB10, 3SB15 and 3SB20) – for forming reinforced edges of external renderings (see Figure 3)

Figure 3 Standard stop beads (all dimensions in mm)



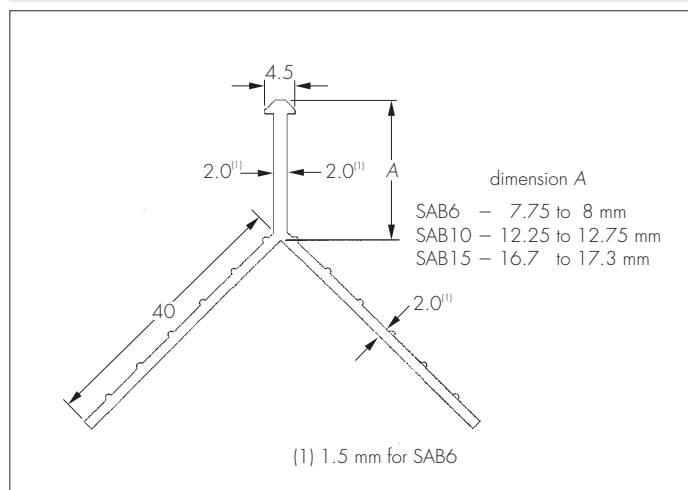
- Wide stop beads (W3SB10, W3SB15 and W3SB20) — for forming reinforced edges of external renderings (see Figure 4)

Figure 4 Wide stop beads (all dimensions in mm)



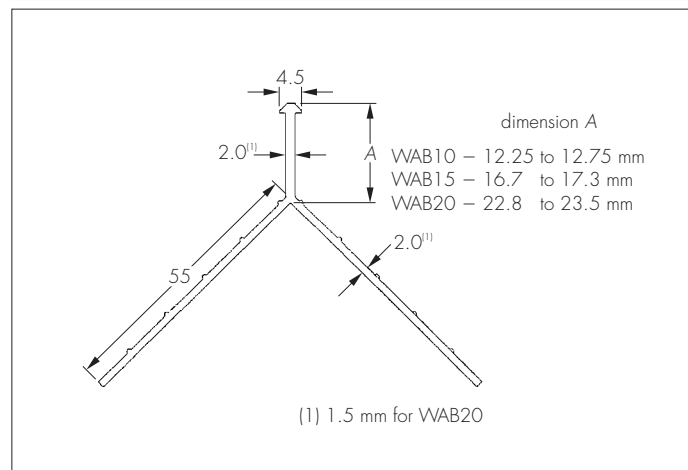
- Standard angled beads (SAB6, SAB10 and SAB15) — to form a reinforced arris in external rendering (see Figure 5)

Figure 5 Standard angle beads (all dimensions in mm)



- Wide angled beads (WAB10, WAB15 and WAB20) — to form a reinforced arris in external rendering (see Figure 6).

Figure 6 Wide angle beads (all dimensions in mm)



1.3 The products are available in the following range of colours:

- | | | | |
|----------------|------------|----------|-----------|
| • African Grey | • Primrose | • Bamboo | • Sage |
| • Candy | • Dove | • White | • Cottage |
| • Ivory | • Willow | • Peach | • Sunbeam |
| • Wheat | • Brick | • Fawn | • Ocean. |

1.4 All products meet the dimensional specifications given for angle beads, stop beads and render stop beads in accordance with BS EN 13658-2 : 2005.

1.5 Each of the products has pre-drilled, 2 mm diameter holes at 68 mm centres along their length for fixing, where required.

1.6 The products are supplied in 3 m lengths.

1.7 The profiles are extruded from recycled PVC-U. Quality control is exercised over incoming raw materials, during manufacture and on the final products.

2 Delivery and site handling

2.1 ProBead External Render Beads are delivered in packs of one type, each containing 34 by 3 m beads. Each pack is labelled bearing the marketing company's name, product code and the other bearing the marketing company's name and the BBA identification mark incorporating the number of this Certificate.

2.2 Packs of profiles should be stored flat, away from direct sunlight and excess heat and supported along their length to prevent distortion.

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on ProBead External Render Beads.

Design Considerations

3 Use

3.1 ProBead External Render Beads are for use with external rendering on walls of masonry or dense concrete construction.

3.2 The products are suitable for use in the situations given in Table 1.

Table 1 ProBead applications

Component	Render thickness (mm)
Standard bellcast beads	
3BC10	6-10
3BC15	10-15
3BC20	15-20
Wide bellcast beads	
W3BC10	6-10
W3BC15	10-15
W3BC20	15-20
Standard stop beads	
3SB4	4
3SB6	6
3SB10	10
3SB15	15
3SB20	20
Wide stop beads	
W3SB10	10
W3SB15	15
W3SB20	20
Standard angled beads	
SAB6	6-8
SAB10	10-14
SAB15	15-20
Wide angle beads	
WAB10	10-14
WAB15	15-20
WAB20	20-24

4 Practicability of installation

The products are designed to be installed by a competent general builder experienced in external rendering

5 Structural stability

5.1 The products provide adequate fixing and support to the applied render.

5.2 The profiles have adequate resistance to mechanical damage, but can be damaged by severe impacts.

6 Performance in relation to fire



The products would not be classified 'non-combustible' when tested in accordance with BS 476-4 : 1970 but, in the opinion of the BBA, will not introduce additional hazard in respect of the behaviour in fire of the rendered surface.

7 Maintenance

As the products are used in a wall structure and have suitable durability (see section 8) maintenance is generally not required.

8 Durability



8.1 The products are formed from durable materials and will perform adequately as a support for external rendering for a period of at least 25 years.

8.2 There will be some loss of colour over this period. This will vary depending on the colour chosen, but will not be excessive and will be consistent over any one aspect faced.

Installation

9 General

Installation of ProBead External Render Beads is simple and can be carried out by general builders/renderers using traditional skills. Cutting lengths of profiles on site can be achieved using normal hand tools, such as a fine-toothed saw.

10 Procedure

10.1 The correct size of profile should be selected for the particular application (see Table 1) and cut to length.

10.2 The product is either fixed to the wall with corrosion-resistant fixings, using the pre-drilled holes provided, and/or by bedding into render previously applied to the substrate. Galvanized steel fixings can be used, in accordance with BS EN 13914-1 : 2005, but stainless steel should be used in corrosive or coastal locations (less than 5 km from the sea).

10.3 Render is subsequently applied over the bead in a conventional manner, ensuring that it is fully compacted and placed to the edge of the nosing.

10.4 The external rendering must be applied in accordance with BS EN 13914-1 : 2005 and the render manufacturer's instructions.

Technical Investigations

11 Tests

Tests were carried out to determine:

- ash content
- dehydrochlorination
- resistance to artificial weathering
- tensile strength and elongation
- heat ageing characteristics
- pull-out resistance of fixings
- impact resistance
- thermal shrinkage
- pull-out resistance from render.

12 Investigations

12.1 The manufacturing process and the methods adopted for quality control were examined and details were obtained of the quality and composition of the materials used.

12.2 A postal user survey was carried out to assess the products' performance in use.

12.3 Visits were made to sites where the products had been in service for up to five years.

Bibliography

BS 476-4 : 1970 *Fire tests on building materials and structures — Non-combustibility test for materials*

BS EN 13658-2 : 2005 *Metal lath and beads — Definitions, requirements and test methods — External rendering*

BS EN 13914-1 : 2005 *Design, preparation and application of external rendering and internal plastering — External rendering*

13 Conditions

13.1 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.

13.2 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.

13.3 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.

13.4 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.

13.5 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.