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Agrément Certificate

06/4382

Product Sheet 1

PROBEAD RENDER BEADS

PROBEAD EXTERNAL RENDER BEADS

This Agrément Certificate Product Sheet⁽¹⁾ relates to ProBead External Render Beads, a range of coloured PVC-U extrusions for use with render on new or existing buildings.

(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

Structural stability — the products provide satisfactory fixing and support to the applied render, and adequate resistance to mechanical damage (see section 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 an additional hazard in respect of the behaviour in fire of the rendered surface (see section 7).

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 (see section 9).



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

John Albon – Head of Approvals
Construction Products

Claire Curtis-Thomas
Chief Executive

Date of Fourth issue: 25 May 2017

Originally certificated on 25 October 2006

Certificate amended on 16 May 2019 to include Regulation 7(2) for England and associated text.

Certificate amended on 7 May 2020 to include new regulatory guidance for fire in Scotland and Wales.

Certificate amended on 30 July 2020 to update section 7.

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.

Any photographs are for illustrative purposes only, do not constitute advice and should not be relied upon.

British Board of Agrément

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Regulations

In the opinion of the BBA, ProBead External Render Beads, 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:	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 7 of this Certificate.
Regulation:	7(1)	Materials and workmanship
Comment:		The products are acceptable materials. See section 9.1 and the <i>Installation</i> part of this Certificate.
Regulation:	7(2)	Materials and workmanship
Comment:		The products are restricted in some cases by this Regulation. See section 7 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 9.1 and the <i>Installation</i> part of this Certificate.
Regulation:	9	Building standards applicable to 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 7 of this Certificate.
Standard:	7.1(a)	Statement of sustainability
Comment:		The products can contribute to meeting 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:		All comments given for 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	Fitness of materials and workmanship
Comment:		The products are acceptable materials. See section 9.1 and the <i>Installation</i> part of this Certificate.
Regulation:	36(a)	External fire spread
Comment:		The products will not adversely affect the fire properties of a wall in which they are incorporated. See section 7 of this Certificate.

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

In the opinion of the BBA, there is no information in this Certificate which relates to the obligations of the client, designer (including Principal Designer) and contractor (including Principal Contractor) under these Regulations.

Technical Specification

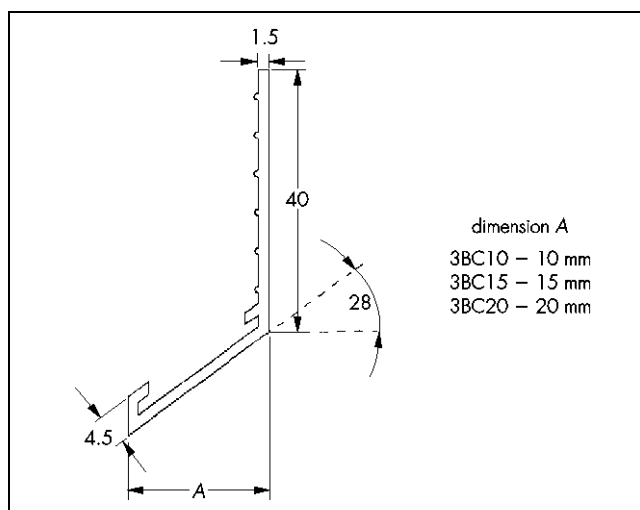
1 Description

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:

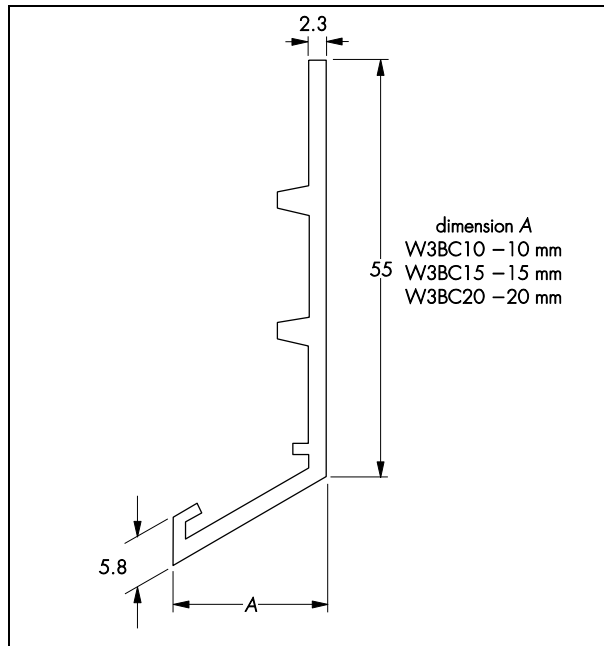
- Standard bellcast beads (3BC10, 3BC15 and 3BC20) — for forming a reinforced stop (or bellcasting) at the lower edge of external rendering (see Figure 1)

Figure 1 Standard bellcast beads (all dimensions in mm)



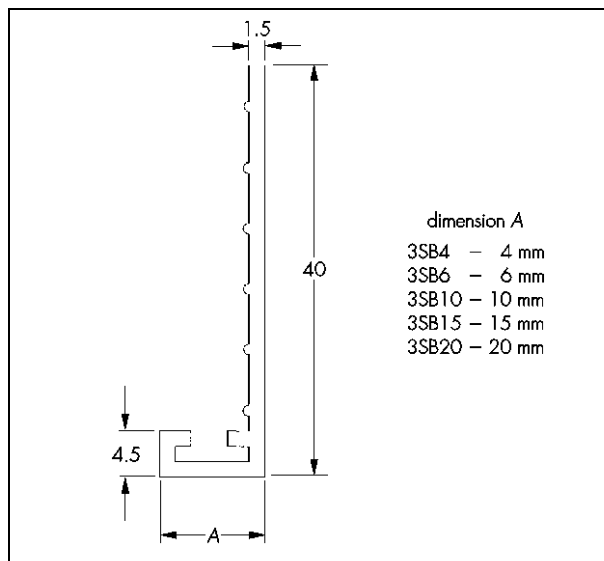
- Wide bellcast beads (W3BC10, W3BC15 and W3BC20) — for forming a reinforced stop (or bellcasting) at the lower edge of external rendering (see Figure 2)

Figure 2 Wide bellcast beads (all dimensions in mm)



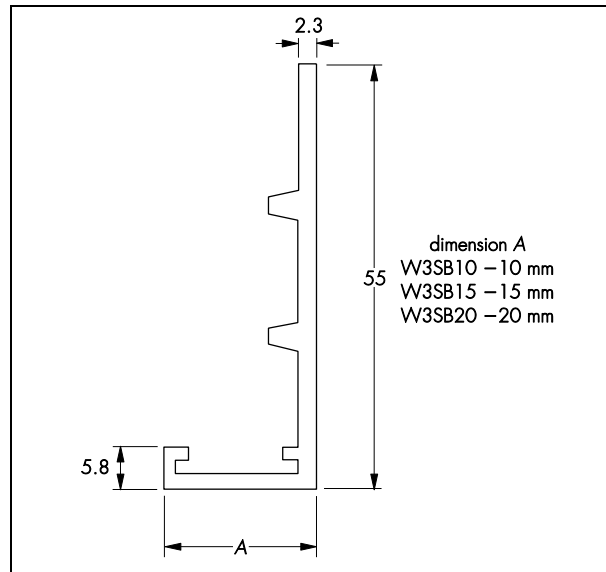
- Standard stop beads (3SB4, 3SB6, 3SB10, 3SB15 and 3SB20) — for forming reinforced edges of external renderings (see Figure 3)

Figure 3 Standard stop beads (all dimensions in mm)



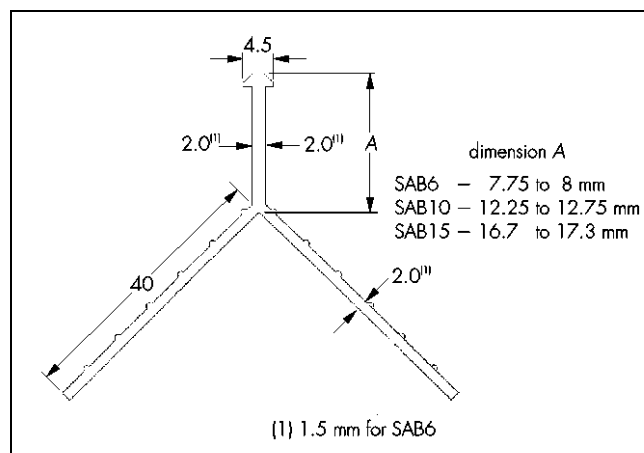
- Wide stop beads (W3SB10, W3SB15 and W3SB20) — for forming reinforced edges of external renderings (see Figure 4)

Figure 4 Wide stop beads (all dimensions in mm)



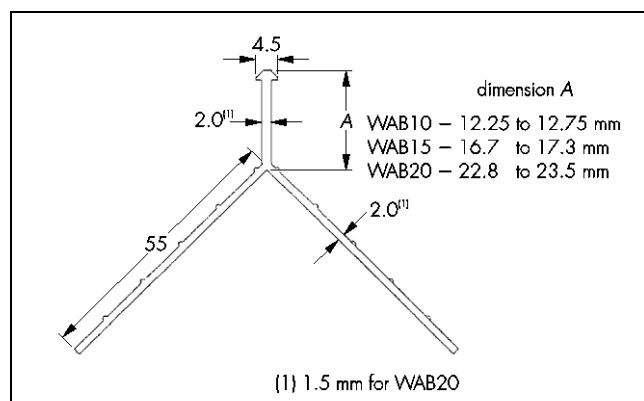
- Standard angled beads (SAB6, SAB10 and SAB15) — to form a reinforced arris in external rendering (see Figure 5)

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 colours:

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

1.4 The 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 The products have 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.

2 Manufacture

2.1 The profiles are extruded from recycled PVC-U.

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 operated by the manufacturer are being maintained.

3 Delivery and site handling

3.1 ProBead External Render Beads are delivered in packs of one type, each containing 34 by 3 m beads. Each pack is labelled with the Certificate holder's name, product code and the BBA logo incorporating the number of this Certificate.

3.2 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

4 Use

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

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

Table 1 ProBead application

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

5 Practicability of installation

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

6 Structural stability

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

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

7 Performance in relation to fire



The profiles would not be classified as 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.

8 Maintenance

As the products are used in a wall structure and have suitable durability (see section 9) maintenance is not required.

9 Durability



9.1 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.

9.2 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 face.

Installation

10 Procedure

10.1 The correct size of profile should be selected for the particular application (see Table 1) and cut to length using normal hand tools, such as a fine-toothed saw.

10.2 The products are 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 : 2016, 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 beads 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 : 2016 and the render manufacturer's instructions.

Technical Investigations

11 Tests

Tests were carried out to determine:

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

12 Investigations

12.1 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.

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 : 2016 *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 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.

13.2 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.

13.3 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.

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

13.5 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.

13.6 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.