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Agrément Certificate

01/3792

Product Sheet 2

POLYPIPE TDI INSULATING DAMP-PROOF COURSE/CAVITY CLOSER

TDI CAVITY STOP

PRODUCT SCOPE AND SUMMARY OF CERTIFICATE

This Certificate relates to TDI Cavity Stop, a cavity barrier for use in party walls and abutments to provide noise insulation and sixty minutes fire integrity.

AGRÉMENT CERTIFICATION INCLUDES:

- factors relating to compliance with UK 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

Hygrothermal behaviour — the product can be used in Accredited Construction Details (version 1.0) for jambs and sills which require a path of minimum thermal resistance through the closer of $0.45 \text{ Wm}^{-2}\text{K}^{-1}$ (see section 5).

Weather resistance — the product is effective as a damp-proof barrier and when used in a suitable wall construction will resist the passage of water into the interior of the building in separating wall and abutment installations (see section 6).

Structural stability — the product must not be used to support loads from the masonry (see section 7).

Properties in relation to fire — the installed product will not contribute significantly to the growth of a fire. The product will act as a cavity barrier (see section 8).

Sound — the product will inhibit the passage of sound (see section 8).

Durability — the product, protected within the cavity, will last the normal expected life of a building (see section 11).



The BBA has awarded this Agrément Certificate to the company named above for the product described herein. This 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

Chris Hunt
Head of Approvals — Physics

Greg Cooper
Chief Executive

Date of First issue: 4 December 2008

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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In the opinion of the BBA, TDI Cavity Stop, 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 2000 (as amended) (England and Wales)

Requirement:	B3(4)	Internal fire spread (structure)
Comment:		The product can be used in constructions that meet this Requirement. See sections 8.1 and 8.2 of this Certificate.
Requirement:	C2(b)	Resistance to moisture
Comment:		The product prevents the passage of moisture from the outer leaf to the inner leaf of a cavity wall. See section 6 of this Certificate.
Requirement:	C2(c)	Resistance to moisture
Comment:		The product can contribute to minimising surface condensation at junctions. See sections 5.2 and 5.3 of this Certificate.
Requirement:	E1	Protection against sound from other parts of the building and adjoining buildings
Comment:		The product contributes to resisting the passage of flanking sound transmission. See section 9 of this Certificate.
Requirement:	L1(a)(i)	Conservation of fuel and power
Comment:		The product contributes to minimising heat loss at external walls and separating wall junctions. See section 5.1 of this Certificate.
Requirement:	Regulation 7	Materials and workmanship
Comment:		The product is acceptable. See section 11 and the <i>Installation</i> part of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)(2)	Fitness and durability of materials and workmanship
Comment:		The product can contribute to a construction satisfying this Regulation. See sections 10 and 11 and the <i>Installation</i> part of this Certificate.
Regulation:	9	Building standards – construction
Standard:	2.4	Cavities
Comment:		The product can satisfy this Standard, with reference to clause 2.4.1 ⁽¹⁾⁽²⁾ , 2.4.5 ⁽¹⁾ , 2.4.7 ⁽²⁾ and Annex 2.B ⁽¹⁾ or 2.D ⁽²⁾ . See sections 8.1 and 8.2 of this Certificate.
Standard:	3.10	Precipitation
Comment:		Walls incorporating the product can satisfy this Standard, with reference to clauses 3.10.1 ⁽¹⁾⁽²⁾ and 3.10.3 ⁽¹⁾⁽²⁾ . See section 6 of this Certificate.
Standard:	3.15	Condensation
Comment:		The product can contribute to minimising surface condensation at junctions, with reference to clauses 3.15.1 ⁽¹⁾ , 3.15.4 ⁽¹⁾ and 3.15.5 ⁽¹⁾ . See sections 5.2 and 5.3 of this Certificate.
Standard:	6.1(b)	Carbon dioxide emissions
Standard:	6.2	Building insulation envelope
Comment:		The product contributes to minimising heat loss at external walls and separating wall junctions, with reference to clauses 6.2.3 ⁽¹⁾ , 6.2.4 ⁽¹⁾⁽²⁾ and 6.2.5 ⁽²⁾ . See section 5.1 of this Certificate.
Regulation:	12	Building standards – conversions
Comment:		All comments given for this product 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 product is acceptable. See section 11 of this Certificate.
Regulation:	B3(2)	Suitability of certain materials
Comment:		The product is acceptable. See section 10 of this Certificate.
Regulation:	C4(b)	Resistance to ground moisture and weather
Comment:		Walls incorporating the product can contribute to meeting this Regulation. See section 6 of this Certificate.
Regulation:	C5	Condensation
Comment:		The product can contribute to minimising surface condensation at junctions. See section 5.3 of this Certificate.
Regulation:	E4(4)	Internal fire spread – Structure
Comment:		The product can contribute to satisfying this Regulation. See sections 8.1 and 8.2 of this Certificate.
Regulation:	F2(a)(i)	Conservation measures
Regulation:	F3	Target carbon dioxide Emissions Rate
Comment:		The product can contribute to minimising heat loss at external walls and separating wall junctions. See section 5.1 of this Certificate.
Regulation:	G2	Separating walls and separating floors
Comment:		The product can contribute to providing adequate resistance to airborne sound and transmission. See section 9 of this Certificate.
Regulation:	G3	Existing walls and floors which become separating walls and separating floors
Comment:		The product contributes to resisting the passage of flanking sound transmission. See section 9 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 2008

NHBC accepts the use of TDI Cavity Stop, when installed and used in accordance with this Certificate, in relation to NHBC Standards, Chapter 6.1 *External masonry walls*.

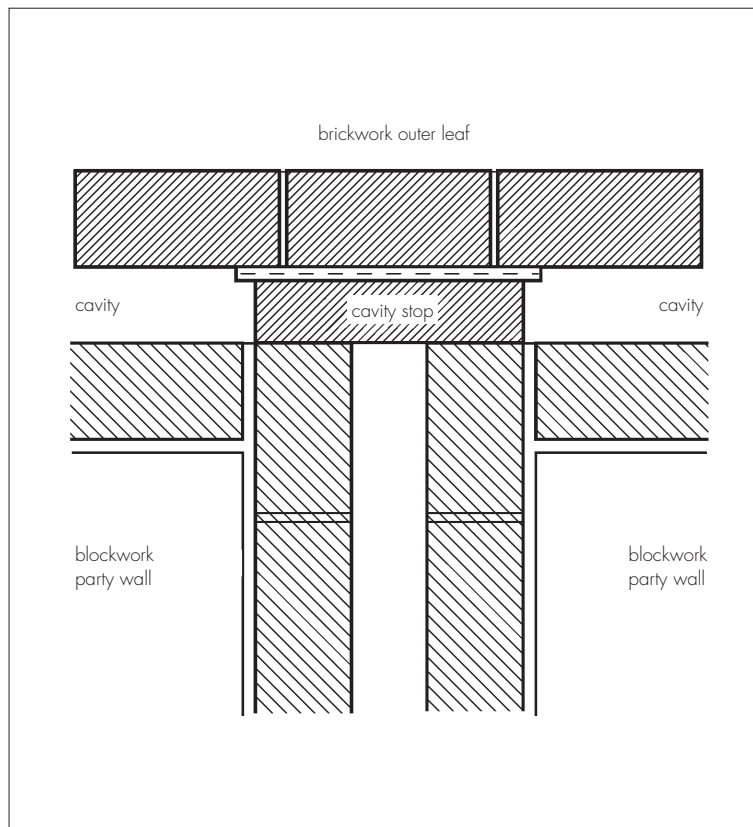
Zurich Building Guarantee Technical Manual 2007

Zurich accepts the use of TDI Cavity Stop, when installed and used in accordance with this Certificate, in relation to the *Zurich Building Guarantee Technical Manual*, Section 4 *Superstructure*, Sub-section *External walls – thermal insulation*.

General

TDI Cavity Stop is satisfactory to provide an insulated DPC and cavity closer in masonry separating walls and abutments (see Figure 1).

Figure 1 Typical separating detail



Technical Specification

1 Description

1.1 TDI Cavity Stop consists of 50 mm to 125 mm thick in 25 mm steps, flexible lava stone wool insulation encapsulated in a polythene sleeve and bonded to a 0.5 mm thick polyethylene strip. The polyethylene either complies with BS 6515 : 1984 or is the subject of a valid Agrément Certificate.

1.2 The product is available in any width between 90 mm and 500 mm.

1.3 Quality control checks are carried out during manufacture and on the final product.

2 Delivery and site handling

2.1 The product is supplied in 7.5 m long rolls. Each roll is packed in polythene bags complete with a label bearing the name of the manufacturer and the BBA identification mark incorporating the number of this Certificate. Fitting instructions are available on the Certificate holder's website. There are five rolls per pack.

2.2 The packs should be stored under cover, away from direct sunlight.

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on TDI Cavity Stop.

Design Considerations

3 Use


3.1 TDI Cavity Stop is for use in masonry cavity separating walls and abutments. It is available in a range of sizes to suit different cavity widths.


3.2 It is essential that the product is installed in accordance with the conditions set out in the *Design Considerations* and *Installation* parts of this Certificate.


4 Practicability of installation

Installation of the product is straightforward and can be carried out by tradesmen using traditional skills.

5 Hygrothermal behaviour

 5.1 When installed as detailed in section 12, the product will satisfy the requirement of the Accredited Construction Details assuming that the cavity stop insulation fully crosses the abutment. The product can therefore be used in accordance with the Accredited Construction Details (version 1.0) to limit heat loss and assign the default psi values for junctions in separating walls between dwellings, given in Table 3 of BRE Information Paper IP 1/06 *Assessing the effects of thermal bridging at junctions and around openings* in SAP and SBEM calculations.

 5.2 Junctions of separating walls between dwellings incorporating the product in accordance with section 4.1 will adequately limit the risk of local surface condensation.

 5.3 Under normal domestic conditions, the level of interstitial condensation associated with the product will be low and the risk of any resultant damage, minimal.

6 Weather resistance

 The product forms an effective damp-proof course at separating walls and abutments.

7 Structural stability

7.1 The product is not for use in situations where a load is to be carried.

7.2 The work should be detailed to ensure the insulation does not carry loads.

8 Properties in relation to fire


 8.1 On the evidence of fire test data using the basic testing procedure of BS 476-20 : 1987, the product will provide at least 60 minutes fire resistance, subject to the depth not being less than 90 mm and the restrictions shown in Table 1.

Table 1 Maximum gaps for product use

Product insulation thickness (mm)	Maximum gap that product can be used with (mm)
50	25
75	50
100	75
125	100

8.2 The standard thickness product constitutes a cavity barrier against the penetration of smoke and flame at openings for windows and doors as defined in the Building Regulations.

9 Sound



With reference to Robust Details — Part E *Resistance to the passage of sound*, the cavity stop will inhibit the passage of sound when used in constructions in England and Wales and Northern Ireland.

10 Maintenance



The product does not require any maintenance.

11 Durability



The product is durable and when installed in accordance with this Certificate, will not suffer significant degradation when protected within the cavity. The product will last the normal expected life of a building.

Installation

12 General

12.1 Installation of TDI Cavity Stop must follow normal good practice for the detailing of damp-proof courses, as set out in BS 8000-3 : 2001, BS 8000-4 : 1989, BS 8215 : 1991, BRE Digest 380 *Damp-proof courses*, and the Certificate holder's instructions.

12.2 Installation can be carried out by craftsmen using traditional methods. Lengths can be easily cut to size on site using normal hand tools.

12.3 The product is sufficiently robust and flexible to allow manipulation and positioning within the cavity. However, care must be taken during site handling and cavity cleaning to avoid damaging the insulation and composite bond. If any significant damage occurs, the material should be replaced.

12.4 The product must be incorporated during the building of the wall to ensure that a good seal is formed between the inner and outer leaf and the cavity properly closed.

13 Procedure

13.1 The external brickwork should be built up to four/five courses.

13.2 The product is placed into position such that it will bridge the cavity of the separating wall and with the dpc to the inner face of the external wall.

13.3 The inner blockwork and separating wall is built up ensuring that the product is firmly held between the separating wall and the brickwork.

13.4 Building up the walls is continued and the product rolled out. If necessary, the product should be lightly secured to the brickwork with a silicone sealant or similar, and any excess cut off.

13.5 Where it is necessary to join two pieces, a minimum overlap of 100 mm is recommended. 100 mm of the insulation from the end of the new roll should be removed and discarded. The two pieces should then be butted together such that the exposed dpc is behind the product already in place.

Technical Investigations

14 Tests

Tests were carried out to determine the fire performance of TDI Cavity Stop to BS 476-20 : 1987.

15 Investigations

15.1 The manufacturing process was examined, including the methods adopted for quality control, and details were obtained of the quality and composition of the materials used.

15.2 A re-examination was made of the data and investigations carried out on the polyethylene dpc material as part of the assessment leading to the issue of a previous Certificate.

15.3 An assessment was made of heat loss and construction risk in accordance with the Accredited Construction Details (version 1.0) and the Accredited Construction Details (Scotland).

15.4 An assessment was made of the durability of the product's materials.

15.5 A re-examination of data from a previous insulated dpc assessment of the Certificate holder was made for the effectiveness of composite bond and practicability of installation.

Bibliography

- BS 476-20 : 1987 *Fire tests on building materials and structures — Method for determination of the fire resistance of elements of construction (general principles)*
- BS 6515 : 1984 *Specification for polyethylene damp-proof courses for masonry*
- BS 8000-3 : 2001 *Workmanship on building sites — Code of practice for masonry*
- BS 8000-4 : 1989 *Workmanship on building sites — Code of practice for waterproofing*
- BS 8215 : 1991 *Code of practice for design and installation of damp-proof courses in masonry construction*

16 Conditions

16.1 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.

16.2 References in this Certificate to any Act of Parliament, Statutory Instrument, Directive or Regulation of the European Union, British, European or International Standard, Code of Practice, manufacturers' instructions or similar publication, are references to such publication in the form in which it was current at the date of this Certificate.

16.3 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.

16.4 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.

16.5 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.

