

SCOPE OF AGRÉMENT

This BDA Agrément® (hereinafter 'Agrément') relates to Idrostop B25 N (hereinafter the 'Product'). The Product consists of a formulated blend of sodium bentonite and butyl rubber, forming a high-swelling hydrophilic strip-waterstop which reacts with water to seal construction joints within concrete and has the ability to seal minor cracks and voids. The Product resists hydrostatic pressure, stopping the passage of water through the joint. The Product is for use in waterproofing construction joints in in-situ reinforced concrete earth retaining structures, ranging from domestic basements to large civil engineering projects. The Product is for existing and new concrete constructions, pipe penetrations in walls and floors, box out penetrations and remedial sections.

DESCRIPTION

The Product is a formulated blend of sodium bentonite and butyl rubber which is black in colour.

ILLUSTRATION



THIRD-PARTY ACCEPTANCE

NHBC - for detailed information, see Section 3.3 (Third-Party Acceptance).

STATEMENT

It is the opinion of Kiwa Ltd. that the Product is safe and fit for its intended use, provided it is specified, installed and used in accordance with this Agrément.

Craig Devine
Operations Manager, Building Products



Alpheo Mlotha CEng FIMMM MBA
Head of Operations, Building Products



SUMMARY OF AGRÉMENT

This document provides independent information to specifiers, specialists, engineers, building control personnel, contractors, installers and other construction industry professionals who are considering the safety and fitness for purpose of the Product. This Agrément covers the following:

- Conditions of use;
- Production Control, Quality Management System and the Annual Verification Procedure;
- Product components and ancillary items, points of attention for the Specifier and examples of details;
- Installation;
- Independently assessed Product characteristics and other information;
- Compliance with national Building Regulations, other regulatory requirements and Third-Party Acceptance, as appropriate;
- Sources.

MAJOR POINTS OF ASSESSMENT

Moisture control - see Section 2.2.7 - the Product will resist the passage of water and any other form of moisture or vapour infiltration from the ground.

Strength - see Section 2.2.8 - the Product is resistant to normal construction site activities, is unaffected by extremes of temperature and humidity and does not require any form of protection. The swelling capacity provides the capability of the Product to seal minor cracks and voids.

Fire performance - see Section 2.2.9 - the Product is classified as European Classification E, in accordance with BS EN 13501-1.

Durability - see Section 2.2.10 - the Product shall have a service life durability equivalent to that of the building into which it is incorporated.

UKCA, UKNI and CE marking - see Section 2.2.11 - the Agrément holder has responsibility for conformity marking, in accordance with all relevant British and European Product Standards.

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1 GENERAL CONSIDERATIONS

1.1 CONDITIONS OF USE

1.1.1 Limitations

This Agrément has been prepared in accordance with the mandatory requirements defined in the relevant Kiwa Technical Requirement. Some information in this Agrément is provided for guidance or reference purposes only; this information falls outside the scope of the Technical Requirement.

1.1.2 Application

The assessment of the Product relates to its use in accordance with this Agrément and the Agrément holder's requirements.

1.1.3 Assessment

Kiwa Ltd. has assessed the Product in combination with relevant test reports, technical literature, the Agrément holder's quality plan, DoPs and site visit, as appropriate. The NHBC Standards have also been taken into consideration.

1.1.4 Installation supervision

It is recommended that the quality of installation and workmanship is controlled by the Agrément holder.

The Product shall be installed strictly in accordance with the instructions of the Agrément holder and the requirements of this Agrément.

1.1.5 Geographical scope

The validity of this document is limited to England, Wales, Scotland and Northern Ireland, with due regard to Section 3 of this Agrément (CDM, national Building Regulations and Third-Party Acceptance).

1.1.6 Validity

The purpose of this Agrément is to provide well-founded confidence to apply the Product within the scope described. The validity of this Agrément is as published on www.kiwa.co.uk/bda.

1.2 PRODUCTION CONTROL AND QUALITY MANAGEMENT SYSTEM

Kiwa Ltd. has conducted an audit of the Agrément holder and determined that they fulfil all their obligations in relation to this Agrément in respect of the Product.

The initial audit demonstrated that the Agrément holder has a satisfactory Quality Management System (QMS) and is committed to continuously improving their quality plan. Document control and record-keeping procedures were deemed satisfactory. A detailed Production Quality Specification (PQS) has been compiled to ensure traceability and compliance under the terms of this Agrément.

1.3 ANNUAL VERIFICATION PROCEDURE - CONTINUOUS SURVEILLANCE

To demonstrate that the Product conforms with the requirements of the technical specification described in this Agrément, an Annual Verification Procedure has been agreed with the Agrément holder in respect of continuous surveillance and assessment, and auditing of the Agrément holder's QMS.

2 TECHNICAL ASSESSMENT

This Agrément does not constitute a design guide for the Product. It is intended only as an assessment of safety and fitness for purpose.

2.1 PRODUCT COMPONENTS AND ANCILLARY ITEMS

2.1.1 Components included within the scope of this Agrément

The components listed in Table 1 below are integral to the Product.

Table 1 - Integral components

Component	Description	Dimensions
Idrostop B25 N	a formulated blend of sodium bentonite and butyl rubber, forming a high-swelling hydrophilic strip-waterstop	25 mm by 19 mm by 5 m coil

2.1.2 Ancillary items falling outside the scope of this Agrément

The following ancillary items detailed in this Section may be used in conjunction with the Product, but fall outside the scope of this Agrément:

- MetalMesh - a profiled expanded metal mesh strip, designed for mechanically fixing Idrostop B25 N to cast-in-place concrete joint surfaces;
- Idrostop Mastic - a high quality, neutral, moisture cured, elastic, one-component adhesive sealant based on MS Polymer.

2.2 POINTS OF ATTENTION TO THE SPECIFIER

2.2.1 Design

2.2.1.1 Design responsibility

A Specifier may undertake a project-specific design, in which case it is recommended that the Specifier co-operates closely with the Agrément holder. The Specifier or Installer is responsible for the final as-built design.

2.2.1.2 Basis of design

The characteristics detailed in the section titled 'Major Points of Assessment' shall be considered during the use of the Product.

2.2.1.3 General design considerations

The Product is satisfactory for use in systems to seal concrete construction joints as part of Type A and B waterproofing protection of below-ground structures. This contributes to provide waterproofing protection Grades 1 and 2; and Grade 3 when part of a combined waterproofing protection solution design as defined in BS 8102.

The Product can be applied in construction joints in in-situ reinforced concrete earth retaining structures, ranging from domestic basements to large civil engineering projects. The Product can also be used in new to existing concrete constructions, pipe penetrations in walls and floors, box out penetrations and remedial sections.

Waterproofing systems shall be designed by a waterproofing design specialist, such as designers who have successfully completed the Certified Surveyor in Structural Waterproofing (CSSW) qualification available from the Property Care Association (PCA).

The Product is designed for the waterproofing of construction joints in below-ground vertical and horizontal structural foundations, walls and covered decks.

The design of the waterproofing of the earth retaining structure shall be in accordance with BS 8102.

Typical applications include the waterproofing of construction joints in backfilled concrete walls, structural slabs, covered rafts, covered decks, foundations, void-former installations and property line construction.

The construction shall conform with current national Building Regulations, British Standards and relevant Codes of Practice.

The Product shall not remain permanently exposed.

The gelling of sodium bentonite is adversely affected by the presence of electrolytes (particularly trivalent ions) and may also be affected by the presence of soluble cations such as those found in chalk or lime soils; in such cases advice shall be sought from the Agrément holder. The Product is not affected by organic contaminants.

2.2.1.4 Project-specific design considerations

The project-specific design shall:

- be determined by the Agrément holder;
- take into account the requirements of the relevant national Building Regulations - see Section 3.2;
- take into account the service life durability required - see Section 2.2.10.

No pre-installation survey is required.

2.2.2 Applied building physics (heat, air, moisture)

A Specialist shall check the hygrothermal behaviour of a project-specific design incorporating the Product and, if necessary, offer advice on improvements to achieve the final specification. The Specialist can be either a qualified employee of the Agrément holder or a suitably qualified consultant (in which case it is recommended that the Specialist co-operates closely with the Agrément holder).

2.2.3 Permitted applications

Only applications designed according to the specifications given in this Agrément are permitted. In each case, the Specifier and Installer shall co-operate closely with the Agrément holder.

2.2.4 Installer competence level

The Product shall be installed strictly in accordance with the instructions of the Agrément holder and the requirements of this Agrément.

Installation shall be by an Approved Installer, trained and approved by the Agrément holder.

2.2.5 Delivery, storage and site handling

The Product is delivered in suitable packaging bearing relevant identification information (such as the Product name, production identification date or batch number, the Agrément holder's name, etc.) and, where applicable, the BDA Agrément® logo incorporating the number of this Agrément.

Prior to installation, the Product shall be stored in accordance with the Agrément holder's requirements. Good housekeeping protocols shall be followed to avoid damage, including:

- items shall be stored away from direct heat, in dry conditions, under cover and away from the possibility of damage or premature contact with water;
- boxes shall be protected from being dropped or crushed by objects; care must be exercised when storing large quantities on site;
- items shall not be exposed to open flame or other ignition sources and be stored away from flammable material such as paint and solvents;
- to ensure maximum performance, on-site precautions should be taken to protect them from excessive mud and dirt (good site practice).

2.2.6 Maintenance and repair

Once installed, the Product does not require regular maintenance provided that no part of the Product remains permanently exposed. For advice in respect of repair, consult the Agrément holder.

Performance factors in relation to the Major Points of Assessment

2.2.7 Moisture control

The Product will resist the passage of water and any other form of moisture or vapour infiltration from the ground.

Construction joints of below-ground structures waterproofed with the Product will contribute to a Grade 3 waterproofing as defined in BS 8102 and comply with the relevant requirements of the national Building Regulations of England, Wales, Scotland and Northern Ireland.

2.2.8 Strength

The Product is resistant to normal construction site activities, is unaffected by extremes of temperature and humidity and does not require any form of protection. The swelling capacity provides the ability of sealing minor cracks and voids.

2.2.9 Fire performance

The Product is classified as European Classification E, in accordance with BS EN 13501-1.

The Product does not prejudice the fire-resistance properties of the building, the waterproofed earth retaining structure being fully covered with earth; therefore, the components of the Product will not contribute to the development stages of a fire or present a smoke or toxic hazard.

When properly installed, the Product will not add significantly to any existing fire hazard.

The continuity of fire resistance must be maintained, as described in the relevant national Building Regulations.

2.2.10 Durability

The Product shall have a service life durability equivalent to that of the building into which it is incorporated. The expected lifespan of the building itself shall be at least 60 years.

Once installed, the Product is not susceptible to damage from environmental conditions normally encountered in the UK.

2.2.11 UKCA, UKNI and CE marking

The British and European standard for the Product is BS EN 13491.

Diagram 1 - Typical RC slab construction joint

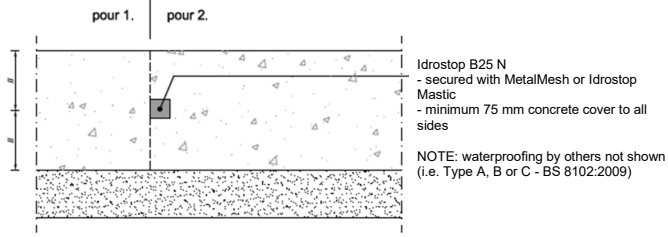


Diagram 2 - Typical RC slab/wall/kicker construction joints

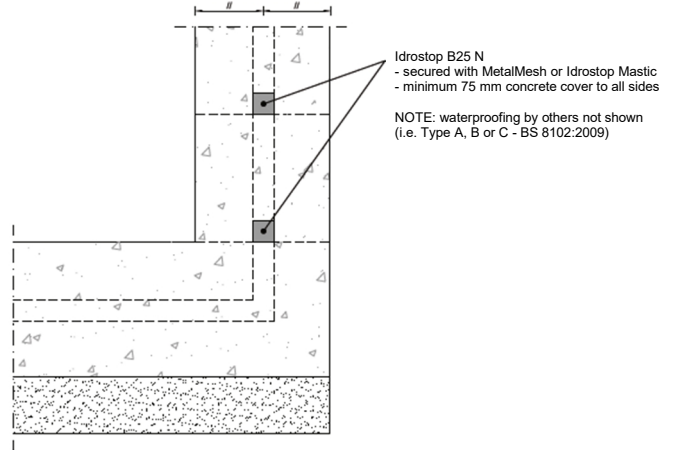


Diagram 3 - Typical RC wall construction (plan)

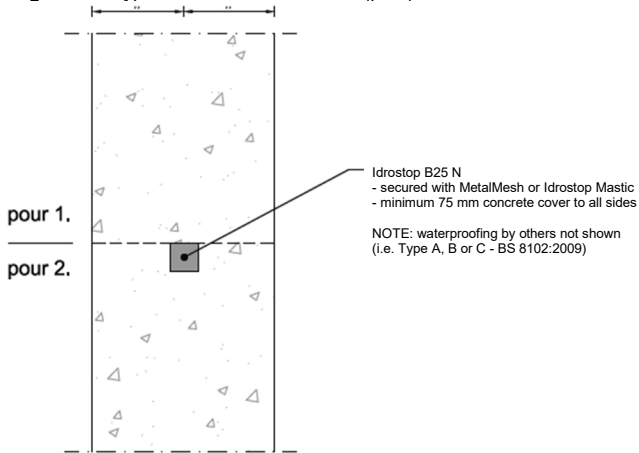


Diagram 4 - Typical RC wall pipe penetration

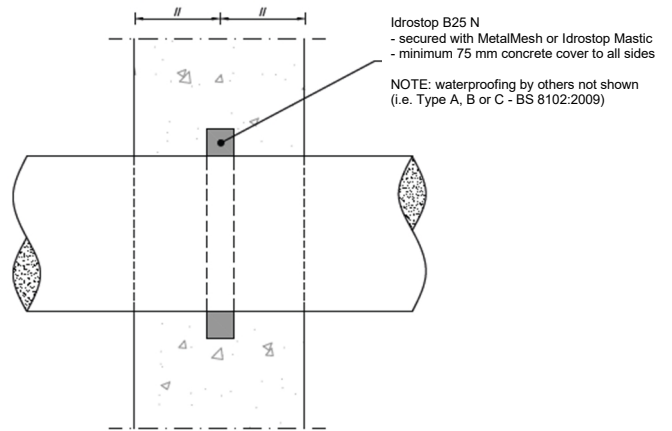
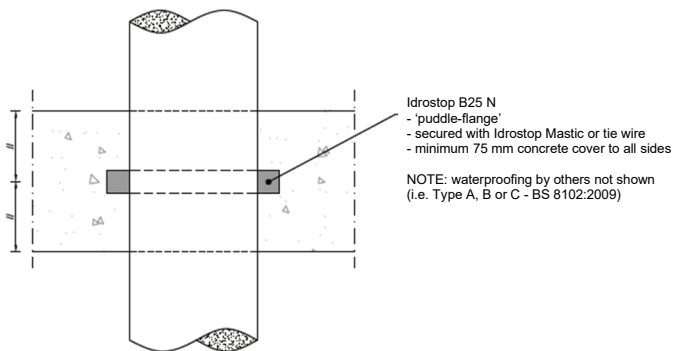


Diagram 5 - Typical RC slab pipe penetration



2.4 INSTALLATION

The Product shall be installed strictly in accordance with the instructions (hereinafter 'Installation Manual') of the Agrément holder, the requirements of this Agrément and the requirements of BS 8000-0.

2.4.1 Project-specific installation considerations

No pre-installation survey is required.

2.4.2 Preparation

The following considerations apply before starting the work:

- substrate surfaces shall be clean and free of standing water;
- loose/flaking concrete and laitance shall be removed by mechanical means;
- forming of rebates/chases is not required.

The following works shall be undertaken before installing the Product:

- special attention shall be given to the cleaning and preparation of all areas and connections involved before the Product components are installed;
- substrates shall be sound, dry and free of dirt, grease, rust, oil, curing agents or other contaminants.

2.4.3 Outline installation procedure

Detailed installation procedures can be found in the Agrément holder's Installation Manual.

The outline procedure is as follows:

Application of the Product using MetalMesh

- following substrate preparation, uncoil the Product, remove release paper and then place onto the substrate ensuring the minimum concrete coverage depth is maintained;
- MetalMesh strips are then placed over the Product, overlapping strip ends by a maximum of 25 mm. Overlaps are nailed through with the fixings supplied at maximum 300 mm centres or as required to match the substrate profile;
- on irregular surfaces it shall be ensured that the Product remains in direct contact with the substrate along the entire installation;
- end-to-end or end-to-side Product junctions are created by simple butt joints. Ensure continuity is achieved through the Product by pressing the ends together;
- start at junctions, do not stretch the Product to fit and do not overlap the Product.

Application of the Product using Idrostop Mastic

- following substrate preparation, apply a continuous bead of Idrostop Mastic to the substrate;
- firmly press the Product into the Idrostop Mastic and hold for a minimum of 20 seconds. For best results apply the Product to the Idrostop Mastic within 15 minutes of Idrostop Mastic application;
- Idrostop Mastic can be applied to damp surfaces, but not in standing water;
- end-to-end or end-to-side Product junctions are created by simple butt joints. Ensure continuity is achieved through the Product by pressing the ends together;
- start at junctions, do not stretch the Product to fit and do not overlap the Product.

Limitations

- the Product is designed for minimum 20 N/mm² reinforced concrete and requires confinement and a minimum 75 mm cover to all sides;
- the Product is not designed to function in movement/expansion joints;
- the Product shall not be subjected to submersion or remain in contact with water prior to concrete pour; if the Product exhibits any considerable swell prior to concrete pour it shall be replaced;
- it is recommended to consult the Agrément holder in conditions where salt water or severe groundwater chemical contamination exists or is expected.

2.4.4 Finishing

The following finishing is required on completion of the installation:

- the Product shall be covered by concrete; no part of the Product shall remain permanently exposed.

2.5 INDEPENDENTLY ASSESSED PRODUCT CHARACTERISTICS

2.5.1 Moisture control

Test	Standard	Result
Water pressure resistance - full immersion	Kiwa BDA Test Method 125	650 kPa, no leakage of waterbar connection

2.5.2 Fire performance

Test	Standard	Result
Reaction to fire	BS EN 13501-1	E

3 CDM, NATIONAL BUILDING REGULATIONS AND THIRD-PARTY ACCEPTANCE

3.1 THE CONSTRUCTION (DESIGN AND MANAGEMENT) REGULATIONS 2015 AND THE CONSTRUCTION (DESIGN AND MANAGEMENT) REGULATIONS (NORTHERN IRELAND) 2016

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

3.2 THE NATIONAL BUILDING REGULATIONS

In the opinion of Kiwa Ltd., the Product, if installed and used in accordance with Section 2 of this Agrément, can satisfy or contribute to satisfying the relevant requirements of the following national Building Regulations.

This Agrément shall not be construed to confer the compliance of any project-specific design with the national Building Regulations.

3.2.1 England

The Building Regulations 2010 and subsequent amendments

- A1 Loading - when adequately confined, the Product contributes to satisfying this Requirement
- C2(a) Resistance to moisture - the Product as installed in construction joints, will enable a below-ground structure to satisfy this Requirement
- Regulation 7 Materials and workmanship - the Product is manufactured from suitably safe and durable materials for its application and can be installed to give a satisfactory performance

3.2.2 Wales

The Building Regulations 2010 and subsequent amendments

- A1 Loading - when adequately confined, the Product contributes to satisfying this Requirement
- C2(a) Resistance to moisture - the Product as installed in construction joints, will enable a below-ground structure to satisfy this Requirement
- Regulation 7 Materials and workmanship - the Product is manufactured from suitably safe and durable materials for its application and can be installed to give a satisfactory performance

3.2.3 Scotland

The Building (Scotland) Regulations 2004 and subsequent amendments

3.2.3.1 Regulation 8(1)(2) Durability, workmanship and fitness of materials

- the Product is manufactured from acceptable materials which are considered to be adequately resistant to deterioration and wear under normal service conditions, provided they are installed in accordance with the requirements of this Agrément

3.2.3.2 Regulation 9 Building Standards - Construction

- 1.1(a)(b) Structure - the application of the Product will not adversely affect the building's ability to transmit loadings
- 3.4 Moisture from the ground - the Product will resist the passage of water and any other form of moisture or vapour infiltration from the ground
- 7.1(a) Statement of sustainability - the Product 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

3.2.3.3 Regulation 12 Building Standards - Conversions

- All comments given for the Product under Regulation 9 also apply to this Regulation, with reference to clause 0.12 and Schedule 6 of this Standard

3.2.4 Northern Ireland

The Building Regulations (Northern Ireland) 2012 and subsequent amendments

- 23(1)(a)(i)(iii)(b) Fitness of materials and workmanship - the Product is manufactured from materials which are considered to be suitably safe and acceptable for use as waterproofing
- 28 Resistance to ground moisture and water - the Product will resist the passage of water and any other form of moisture or vapour infiltration from the ground
- 30 Stability - when adequately confined, the Product contributes to satisfying this Requirement

3.3 THIRD-PARTY ACCEPTANCE

NHBC - In the opinion of Kiwa Ltd., the Product, if installed, used and maintained in accordance with this Agrément, can satisfy or contribute to satisfying the relevant requirements in relation to NHBC Standards, Chapter 5.1 Substructure and ground bearing floors and Chapter 5.4 Waterproofing of basements and other below ground structures.

4 SOURCES

- BS EN ISO 9001:2015 Quality management systems. Requirements
- BS EN 13491:2013 Geosynthetic barriers. Characteristics required for use as a fluid barrier in the construction of tunnels and associated underground structures
- BS EN 13501-1:2018 Fire classification of construction products and building elements. Classification using data from reaction to fire tests
- BS 8000-0:2014 Workmanship on construction sites. Introduction and general principles
- BS 8102:2009 Code of practice for protection of below ground structures against water from the ground
- Kiwa BDA Test Method 125:2017
- NHBC Standards 2018

Remark - Apart from these sources, technical information and confidential reports have been assessed; any relevant documents are in the possession of Kiwa Ltd. and are kept in the Technical Assessment File of this Agrément. The Installation Manual for the Product may be subject to change; contact the Agrément holder for the clarification of revisions.

5 AMENDMENT HISTORY

Revision	Amendment description	Author	Approver	Date
-	First issue	A Chapman	C Devine	August 2023

6 CONDITIONS OF USE

This Agrément may only be reproduced and distributed in its entirety.

Where a National Annex exists in respect of a BS EN (or other) standard, its use is deemed mandatory wherever the original standard is referenced.

Kiwa Ltd. has used due skill, care and attention in the preparation of this BDA Agrément®.

Whilst all due diligence has been used, no liability or warranty is extended by Kiwa Ltd.

The Agrément holder is responsible for advising Kiwa Ltd. immediately if there is a variation to the Product specification or constituent elements/components after initial publication of this BDA Agrément®.

For full terms and conditions, refer to Kiwa Ltd.