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BBA APPROVAL INSPECTION TESTING CERTIFICATION
TECHNICAL APPROVALS FOR CONSTRUCTION

Agrément Certificate
02/3961
Product Sheet 6

WYKAMOL CHEMICAL DAMP-PROOFING SYSTEMS

HYDRADRY

PRODUCT SCOPE AND SUMMARY OF CERTIFICATE

This Certificate relates to HydraDRY, a cementitious waterproofing compound for use as internal waterproofing against penetrating damp for walls of brickwork, blockwork or stone below the level of the installed damp-proof course (dpc).

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

Resistance to water penetration — when used in conjunction with a Wykamol dpc system, the product resists the penetration of water through the wall below the level of the installed dpc system (see section 5).

Durability — when protected from damage, the product will provide an effective barrier against the transmission of liquid water into the building for the life of the dpc system with which it is installed (see section 7).

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

Date of First issue: 2 June 2010
Originally certificated on 4 December 2002

Simon Wroe
Head of Approvals — Materials

Greg Cooper
Chief Executive

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

Regulations

The Building Regulations 2000 (as amended) (England and Wales)

In the opinion of the BBA, the use of the HydraDRY in an existing building is not subject to these Regulations, but action to satisfy Requirement C2(a) and Regulation 7 may be necessary for a 'Material change of use' as defined in Regulation 5(a).

Requirement:	C2(a)	Resistance to moisture
Comment:		The product adequately resists the passage of moisture. See section 5 of this Certificate.
Requirement:	Regulation 7	Materials and workmanship
Comment:		The product is acceptable. See section 7 and the *Installation* part of this Certificate.

The Building (Scotland) Regulations 2004 (as amended)

In the opinion of the BBA, the use of the HydraDRY, in an existing building is not controlled by these Regulations, but action to satisfy the Regulation and related Mandatory Standards below may be necessary for a 'Conversion' as defined in Regulation 4 of these Regulations.

Regulation:	8(1)	Fitness and durability of materials and workmanship
Comment:		The product can contribute to a construction satisfying this Regulation. See section 7 and the *Installation* part of this Certificate.
Regulation:	9	Building standards — construction
Standard:	3.3	Flooding and ground water
Standard:	3.4	Moisture from the ground
Standard	3.10	Precipitation
Comment:		The product adequately resists the passage of moisture and can contribute to satisfying these Standards, with reference to clauses 3.3.2[(1)(2)], 3.4.1[(1)(2)], 3.4.5[(1)(2)], 3.4.7[(1)(2)] and 3.10.1[(1)(2)]. See section 5 of this Certificate.
Regulation:	12	Building standards — conversions
Comment:		All comments given for this system 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)

In the opinion of the BBA, the use of the HydraDRY in an existing building is not controlled by these Regulations, but action to satisfy Regulations B2 and C4(a) may be necessary for a 'Material change of use' under Regulation A9.

Regulation:	B2	Fitness of materials and workmanship
Comment:		The product is acceptable and water-based, and does not release solvent for an unreasonable period. See section 7 and the *Installation* part of this Certificate.
Regulation:	C4(a)	Resistance to ground moisture and weather
Comment:		The product adequately resists the passage of moisture. See section 5 of this Certificate.

Construction (Design and Management) Regulations 2007

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

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

See section: 2 *Delivery and site handling* (2.1 to 2.3) of this Certifcate.

Non-regulatory Information

NHBC Standards 2008

NHBC accepts the use of HydraDRY, when installed and used in accordance with this Certificate, in relation to *NHBC Standards*, Section 5.1 *Substructure and ground floors.*

Technical Specification

1 Description

HydraDRY is a cementitious compound containing cement, graded sands and chemical additives, which is mixed with water on site and applied as a slurry by brush and/or trowel. It is manufactured by a continuous batch blending process and regular quality control checks are conducted on the final product.

2 Delivery and site handling

2.1 The product is supplied in 25 kg polypropylene sacks. Each container carries a label bearing the product name, company address and gross weight.

2.2 The product is classified as 'irritant' under *The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009* (CHIP4), and conventional precautions for cement are followed during handling, transport and storage.

2.3 The product is cement-based and must be stored in dry conditions.

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on HydraDRY.

Design Considerations

3 General

HydraDRY is satisfactory for use in conjunction with a Wykamol dpc system, as internal waterproofing against penetrating water for walls of brickwork, blockwork or stone below the level of the installed dpc.

4 Practicability of installation

The product should only be installed by installers who have been trained and approved by the Certificate holder.

5 Resistance to water penetration

The product resists the penetration of water through the wall below the level of an installed Wykamol dpc system.

6 Maintenance

Maintenance is not required for this product.

7 Durability

When the product is protected from damage (as described in section 9.7) the product will provide an effective barrier against the transmission of liquid water into the building for the life of the dpc with which it is installed.

Installation

8 General

8.1 HydraDRY is applied to brickwork, blockwork or stone walls (with a sand-cement or sand-lime-cement mortar).

8.2 All joints must be flush pointed, defects made good, and irregular surfaces must be given a trowelled or floated finish with a 3:1 sand-cement mix.

8.3 All surfaces must be free from existing coatings or contamination (eg, paint, laitance, dirt).

8.4 If the surface is dry, it must be thoroughly wetted but free from surface water prior to HydraDry being applied.

9 Procedure

9.1 HydraDRY is applied at temperatures of 5°C and above.

9.2 The product is mixed with potable water in clean containers in the ratio 6.5 to 7 litres : 25 kg to form a slurry. Care must be taken to avoid the formation of lumps.

9.3 The product is applied to the substrate in at least two coats, to achieve a minimum thickness of 2 mm (4 $kg \cdot m^{-2}$).

9.4 The first coat of the product is applied by brush and vigorously worked into the surface. Application should be conducted so that a flowing edge is maintained. If this is not possible, when application is continued the previously applied coat must be overlapped by at least 250 mm. The second coat (and subsequent coats) may be applied by brush or trowel, either after the previous coat's initial set (in normal circumstances, after a minimum period of three hours) or after the previous coat has hardened fully.

9.5 Each coat is examined for damage or areas of incomplete coverage before the next coat is applied.

9.6 After the product is mixed, it must be used within 30 minutes.

9.7 Once the final coating has hardened fully, a coat of plaster is applied to protect it from damage in service. Wykamol Renovating Plaster is recommended, as this will reduce the risk of condensation on the surface. Alternatively, any of the sand-cement or sand-lime-cement replastering specifications described in the appendix are suitable. Under no circumstances must gypsum-based products be used in direct contact with HydraDry.

Technical Investigations

10 Investigations

10.1 Tests were conducted to determine the resistance to water pressure, applied through the substrate to a HydraDRY coating on mortar and flush-pointed brickwork.

10.2 A visit was made to a site in progress to assess the practicability of installation.

10.3 A survey of known users was conducted to assess the performance of the product in use which was reported.

Additional Information

The management systems of Wykamol Group have been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2008 by Garek Assured (Certificate No 0111/1104.02).

Bibliography

BS 6576 : 2005 *Code of practice for diagnosis of rising damp in walls of buildings and installation of chemical damp-proof courses*

BS 8481 : 2006 *Design, preparation and application of internal gypsum, cement, cement and lime plastering systems — Specification*

BS EN 197-1 : 2000 *Cement — Composition, specifications and conformity criteria for common cements*

BS EN 13139 : 2002 *Aggregates for mortar*

BS EN 13914-2 : 2005 *Design, preparation and application of external rendering and internal plastering — Design considerations and essential principles for internal plastering*

BS EN ISO 9001 : 2008 *Quality management systems — Requirements*

Property Care Association COP09/09 *Code of Practice for Installation of Remedial Damp-proof Courses in Masonry Walls*

11 Conditions

11.1 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.

11.2 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.

11.3 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.

11.4 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.

11.5 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.

Appendix

Wykamol Group's Replastering Specification

A1 Preparation

A1.1 Wykamol Replastering Specifications are carried out by the Certificate holder's approved contractor in accordance with BS 6576 : 2005, and the Property Care Association *Code of Practice for Installation of Remedial Damp-proof Courses in Masonry Walls*.

A1.2 Plaster affected by hygroscopic salts is removed.

A1.3 Replastering can commence after a minimum period of 14 days from installation of the remedial dpc.

A1.4 If the background is impermeable and offers little suction (eg where rising damp has occurred in the mortar joints), the joints are raked out to provide a mechanical key and/or SBR Latex bonding primer is applied to the surface and the wall is replastered immediately.

A2 Wykamol Replastering Products

Wykamol Renovating Plaster — a premixed cement-based lightweight plaster

Integral Waterproofer No 2 — a salt-retardant additive for use in sand-cement mixes

Brunopel IWP — a salt-retardant additive for use in sand-cement mixes

Brunolene PS — a salt-retardant additive for use in sand-cement or sand-lime-cement mixes or with Wykamol Renovating Plaster.

A3 Procedure — Wykamol Renovating Plaster

A3.1 The plaster is mixed with clean water (or a gauging solution containing Brunolene PS) in clean containers, by hand or mechanically, to a normal plastering consistency. Over-mixing is to be avoided and hand-mixing is preferably conducted in a trough using a hoe or plasterer's drag.

A3.2 The plaster is applied, generally in accordance with BS 8481 : 2006 and BS EN 13914-2 : 2005, to achieve a thickness of between 10 mm and 15 mm, and the surface is lightly scratched. The plaster is applied no lower than the level of the dpc. If necessary, a batten is used to achieve this.

A3.3 If the maximum thickness of the required backing coat is to exceed 15 mm, a scratch or dubbing-out coat is necessary to achieve a level surface. Each coat applied must not exceed 15 mm, be well scratched and allowed to dry before the application of the subsequent coat.

A3.4 Normally, Wykamol Renovating Plaster sets in seven hours.

A4 Procedure — Other renovating plaster mixes

A4.1 Integral Waterproofer No 2 and Brunopel IWP are used in a 3:1 sand-cement mix comprising[1]:

- Portland cement — CEM I class 52,5 N to BS EN 197-1 : 2000
- aggregate — clean, sharp, washed sand, free of salt, suitably graded for plastering to BS EN 13139 : 2002
- gauging water — potable water gauged with: one part of Integral Waterproofer No 2 to 25 parts of water, or one part of Brunopel IWP to 30 parts of water.

(1) These dosing rates are appropriate for dry sand and can be adjusted if the sand is wet.

A4.2 The Brunolene PS additive is used in weaker mixes (eg 6:1 sand-cement or 6:1:1 sand-lime-cement) or with Wykamol Renovating Plaster, gauged with potable water containing one part of Brunolene PS to 30 parts of water (assuming dry sand in 6:1 or 6:1:1 mixes).

A4.3 The sand-cement-additive mix is applied at a thickness of 10 mm. After the first set of this mix is taken up, the surface must be combed or scratched to provide a mechanical key. Where necessary, a second undercoat of sand and cement is applied; the mix proportions and additive used at the same rate as for the first coat. This coat must also be combed or scratched to provide a key.

A5 Finishing coats

After allowing the back coat to set and dry for at least 24 hours, the finishing plaster[1] is applied approximately 1.5 mm to 3 mm thickness. In very wet conditions the drying time can be longer and the finishing plaster must not be applied until it is dry.

(1) covered by a valid Agrément Certificate.

A6 General

The following general information should also be observed.

A6.1 The amount of gauging water in the undercoats should be a minimum consistent with reasonable application.

A6.2 Undercoats based on gypsum must never be used in this type of application.

A6.3 It is recommended that the undercoats be scrape finished to minimise the risk of cracking.

A6.4 A strong mix is never applied over a weak mix or backing.

A6.5 Where scratch coats are to be left as a finish, a high quality wood float finish may be used. However, it is preferred to scrape the finish to a textured surface.

A6.6 Finishing plaster is not recommended if the surface is to be tiled.

A7 Dry-lining methods

A7.1 In certain circumstances replastering of walls following chemical dpc insertion is not feasible, eg extremely friable wall surfaces, uneven wall profiles. Where dry lining is to be carried out, this must be in accordance with the manufacturer's recommendations. Care should be taken to ensure that gypsum adhesives are not used in 'dot and dab' applications directly onto the wall surface. Timber used as battens must be pre-treated and all cut ends re-treated on site. Ventilation must be provided behind the system until the walls have dried out to reduce the possibility of condensation within the void.

A7.2 On walls which are persistently damp due to the presence of high concentrations of hygroscopic salts, normal dry-lining methods are unsuitable. However, in such cases reinstatement can proceed in conjunction with a BBA approved ventilated dry lining system, based on a high-density polyethylene (HDPE) membrane which provides a vapour impermeable surface suitable for conventional plastering and/or dry-lining techniques.