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BBA APPROVAL INSPECTION TESTING CERTIFICATION
TECHNICAL APPROVALS FOR CONSTRUCTION

Agrément Certificate
00/3733
Product Sheet 2

OLDROYD MEMBRANE SYSTEMS

OLDROYD Xs

PRODUCT SCOPE AND SUMMARY OF CERTIFICATE

This Certificate of Confirmation relates to Oldroyd Xs, a moulded polypropylene sheet for damp-proofing floors in new construction or in existing buildings over a contaminated or damp background, and to support a flooring.

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 and water vapour — the product is water resistant and has a high resistance to water vapour transmission (see section 5).

Resistance to salt transfer — the product provides an effective barrier to the transmission of salts or other contaminants from the substrate (see section 6).

Resistance to puncture and loading — the membrane has a high resistance to puncture and will not normally be damaged by normal foot traffic during installation. It can support the long-term loadings likely to be experienced in service without undue deformation (see section 7).

Durability — under normal conditions of use the product will provide an effective barrier to the transmission of salts, liquid water and water vapour for the life of the structure in which it is incorporated (see section 9).

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

Date of First issue: 20 July 2009
Originally certificated on 13 July 2000

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

In the opinion of the BBA, Oldroyd Xs 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)

For new construction and a 'Material Change of Use' of an existing buildings, as defined in Regulation 5a.

Requirement:	C2(a)(b)	Resistance to moisture
Comment:		The product adequately resists the passage of moisture. See section 5.1 of this Certificate.
Requirement:	Regulation 7	Materials and workmanship
Comment:		The product is acceptable. See section 9 and the *Installation* part of this Certificate.

The Building (Scotland) Regulations 2004 (as amended)

For new construction and a 'Conversion' of an existing building, as defined in Regulation 4.

Regulation:	8(1)(2)	Fitness and durability of materials and workmanship
Comment:		The product can contribute to a construction satisfying this Regulation. See sections 8, 9 and the *Installation* part of this Certificate.
Regulation:	9	Building standards — construction
Standard:	3.4	Moisture from the ground
Comment:		The product adequately resists the passage of moisture, with reference to clauses 3.4.1[(1)(2)], 3.4.2[(1)(2)], 3.4.5[(1)(2)], 3.4.6[(1)(2)] and 3.4.7[(1)(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)

For new construction and a 'Material Change of Use' of an existing building, as defined in Regulation A9.

Regulation:	B2	Fitness of materials and workmanship
Comment:		The product is acceptable. See section 9 and the *Installation* part of this Certificate.
Regulation:	B3(2)	Suitability of certain materials
Comment:		The product does not normally require maintenance. See section 8 of this Certificate.
Regulation:	C4(a)(b)	Resistance to ground moisture and weather
Comment:		The product adequately resists the passage of moisture. See section 5.1 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: 1 *Description* (1.2).

Non-regulatory Information

NHBC Standards 2008

In the opinion of the BBA, the use of Oldroyd Xs, when installed and used in accordance with this Certificate, is capable of satisfying the requirements of *NHBC Standards*, Chapters 5.1 *Substructure and ground bearing floors* and 5.2 *Suspended ground floors*.

Zurich Building Guarantee Technical Manual 2007

In the opinion of the BBA, the use of Oldroyd Xs, when installed and used in accordance with this Certificate, is capable of satisfying the requirements of the *Zurich Building Guarantee Technical Manual*, Section 3 *Substructure*, Sub-sections *Basements and Floors*, and Section 6 *Additional guidance for conversions*, Sub-sections *Tanking — Basement space, Damp-proofing* and *Floors*.

General

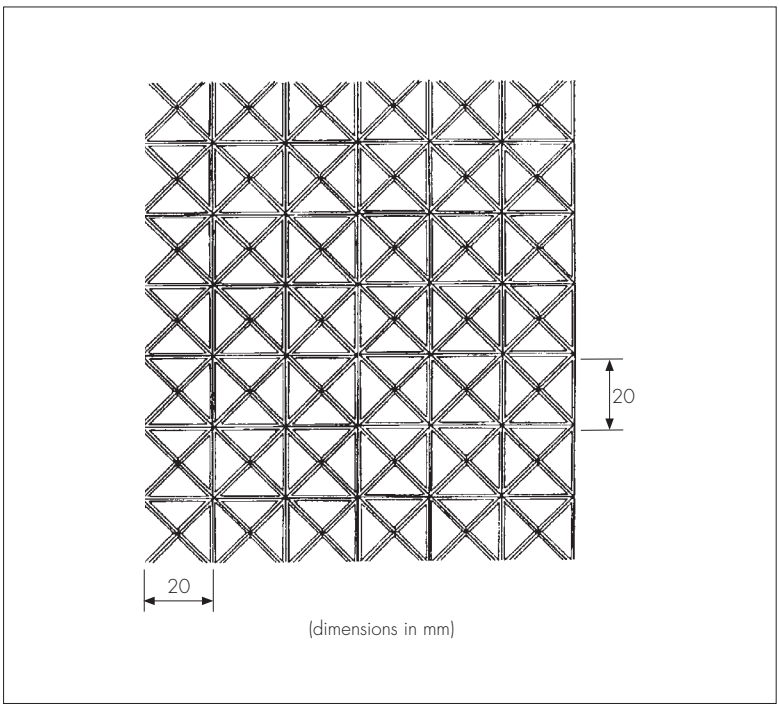
This Certificate is a Confirmation of Norwegian SINTEF Technical Approval No 2206 issued by SINTEF Building and Infrastructure to Oldroyd AS.

Technical Specification

1 Description

1.1 Oldroyd Xs is a polypropylene sheet incorporating a relief pattern of intersecting channels, see Figure 1.

Figure 1 Oldroyd Xv



1.2 The membrane characteristics are:

Roll width and length (m)	1.28 x 20, 2.08 x 20
Weight of roll (kg)	12.8, 20.82
Thickness (mm)	0.5
Weight (kgm^{-2})	0.47
Height (mm)	2.0
Width of flange (mm)	50–80

1.3 Ancillary items used with the product are:

- Oldroyd Jointing Tape — 30 mm wide and 1 mm thick butyl tape for the jointing of laps and detailing at corners
- Oldroyd Pipe Collars — 12 mm to 110 mm diameter, used in conjunction with Oldroyd Jointing Tape to seal pipes protruding from the membrane.

Manufacture

1.4 The membrane is formed in a continuous process in which polypropylene is extruded into sheets and vacuum formed to produce the intersecting channels.

1.5 Quality control is exercised over raw materials, during manufacture and on the final product.

2 Delivery and site handling

2.1 The membrane is delivered to site in rolls packaged in polythene wrapping, palletised and stretch-film wrapped. The product is labelled with the product name, manufacturer's name, and the BBA identification mark incorporating the number of this Certificate.

2.2 Rolls should be stored on end, under cover and protected from sharp objects, sunlight and high temperatures.

Assessment and Technical Investigations

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

Design Considerations

3 Use

3.1 Oldroyd Xs is satisfactory for use as a damp-proofing membrane and support for screed or flooring, over internal faces of floors of all types of existing construction.

3.2 The product has not been assessed for use in chemically contaminated areas, such as brownfield sites. The product consists of a 0.5 mm thick polypropylene membrane and, in the opinion of the BBA, meets the criteria for a radon barrier according to BRE Report 211 (BR 211 : 1999) *Radon : Guidance on protective measures for new dwellings*. However, the effectiveness of the joint sealing system against radon has not been assessed.

3.3 Under normal operating conditions the membrane is not affected by underfloor heating.

4 Practicability of installation

The product is designed to be installed by competent, remedial damp-proofing contractors.

5 Resistance to water and water vapour

5.1 The membrane is water resistant and has a high resistance to water vapour transmission.

5.2 All joints and fixings must be sealed with Oldroyd sealing products.

5.3 Where insulation is laid over the membrane, a vapour control layer should be used unless a condensation assessment in accordance with BS 5250 : 2002 shows this not to be necessary. Due to the high vapour resistance of the membrane, it is essential to ensure that the vapour control layer is continuous and that joints are carefully and fully sealed.

5.4 Care should be taken to ensure that adequate room ventilation is provided to limit the risk of interstitial and surface condensation.

6 Resistance to salt transfer

The membrane provides an effective barrier to the transmission of salts or other contaminants from the substrate.

7 Resistance to puncture and loading

7.1 The membranes have a high resistance to puncture and will not be damaged by normal foot traffic during installation.

7.2 The membrane can support the long-term imposed loadings defined in BS 6399-1 : 1996, Table 1, categories A, C1, C2 and situations with similar loadings in category B, without undue deformation.

8 Maintenance

As the product is confined under the flooring and has suitable durability (see section 10), maintenance is not required.

9 Durability

Under normal conditions of use, the product will provide an effective barrier to the transmission of salts, liquid water and water vapour for the life of the structure in which it is incorporated.

Installation

10 Survey in damp conditions

10.1 Where conditions are damp, a full survey is necessary by a specialist surveyor to diagnose the cause and to establish if treatment is required.

10.2 Appropriate remedial measures are taken to rectify major causes of damp conditions or water ingress, and to repair structural defects.

11 Surface preparation

11.1 When used in new constructions the concrete base must be laid in accordance with BS 8204-1 : 2003.

11.2 If a board covering is to be laid directly on the membrane, the concrete base must have a surface regularity with a maximum permissible departure of 5 mm from the underside of a 2 m straight edge, resting in contact with the floor, in accordance with BS 8204-1 : 2003.

11.3 When used in existing buildings, any unsound screed is removed to expose the substrate which is then cleaned with a stiff brush to remove loose material, laitance, salt residue, organic material or adhesive. If mould is present the substrate is treated with a fungicidal wash in accordance with the Certificate holder's instructions.

11.4 Uneven substrates must be levelled to achieve a flat finish, and allowed to cure before the membrane is laid.

12 Membrane installation

12.1 The membrane is rolled out over the floor with the relief pattern of intersecting grooves facing downwards, and consecutive membrane widths are laid so that the flanged edge overlaps the first sheet by the width of the flange. All joints are sealed using Oldroyd Jointing Tape. End-to-end joints between membranes can also be sealed this way.

12.2 The membrane is laid so that there is 100 mm of spare membrane at the junction with each wall, which should be folded up the wall for later finishing (see section 13.3).

12.3 The membrane is cut within 5 mm to 10 mm of any pipes and services in the floor, and gaps sealed using Oldroyd Jointing Tape.

12.4 Fixings must not be applied through the floor membrane.

13 Floor coverings

13.1 If required, insulation boards of density sufficient for the anticipated design loading, are laid over the membrane.

13.2 Suitable tongue-and-groove flooring board panels should be selected in accordance with BS EN 12871 : 2001, and loose-laid over the membrane to within 10 mm of the walls. The panels are staggered and the joints sealed with a thermoplastic wood adhesive to BS EN 204 : 2001.

13.3 Alternatively, the membrane may be covered by concrete or screed 50 mm thick in accordance with BS 8204-1 : 2003. Care should be taken to ensure the membrane is not displaced when placing the concrete or screed.

13.4 Proprietary screeds may also be considered, which can generally be laid at thicknesses less than 50 mm, but the use of these products with the membrane has not been assessed by the BBA.

13.5 After the final floor surface has been laid, any excess from the 100 mm turn up at the wall junction can be trimmed as appropriate.

Technical Investigations

14 Tests

Tests were carried out to determine:

- low temperature flexibility
- puncture resistance under static load
- nail tear resistance.

15 Investigations

15.1 An assessment was made of the scope of use and durability of the system in relation to the generic properties of the membrane.

15.2 An assessment was made of the data contained in SINTEF Technical Approval No 2206 in relation to the national Building Regulations.

Bibliography

BS 5250 : 2002 *Code of practice for control of condensation in buildings*

BS 6399-1 : 1996 *Loading for buildings — Code of practice for dead and imposed loads*

BS 8204-1 : 2003 *Screeds, bases and in-situ floorings — Concrete bases and cement sand levelling screeds to receive floorings — Code of practice*

BS EN 204 : 2001 *Classification of thermoplastic wood adhesives for non-structural applications*

BS EN 12871 : 2001 *Wood-based panels — Performance specifications and requirements for load bearing boards for use in floors, walls and roofs*

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 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.

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
- remain covered by a valid Norwegian Agrément; and
- 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.

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