NSAI Agrément

**IRISH AGRÉMENT BOARD**
**CERTIFICATE No. 20/0420**
Laydex Ltd,
Unit 3 Allied Industrial Estate,
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# POLYBASE 1200 Gauge (300 micron) Damp Proof Membrane

**NSAI Agrément (Irish Agrément Board)** is designated by Government to carry European Technical Assessments.

NSAI Agrément Certificates establish proof that the certified products are **'proper materials'** suitable for their intended use under Irish site conditions, and in accordance with the **Building Regulations 1997 to 2019**.


## PRODUCT DESCRIPTION

This Certificate relates to the POLYBASE 1200 Gauge (300 micron) Damp Proof Membrane (DPM). The membrane is a loose laid damp proof membrane designed to seal the ground floor construction, perimeter walls and around service penetrations to eliminate damp from entering the structure.

In the opinion of NSAI, the POLYBASE DPM, as described in this Certificate, complies with the requirements of the Building Regulations 1997 to 2019.

## USE

POLYBASE DPM consists of a polyethylene film for use in solid concrete ground floors not subject to hydrostatic pressure, to protect the building against the ingress of moisture from the ground.

## MANUFACTURE AND MARKETING

The products are manufactured on behalf of and marketed by:

Laydex Ltd,
Unit 3 Allied Industrial Estate,
Kylemore Road, Dublin 10.
T: 01 642 6600
E: sales@laydex.ie
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## 1.1 ASSESSMENT

In the opinion of NSAI Agrément, POLYBASE 1200 Gauge (300 micron) DPM, if used in accordance with this Certificate, can meet the requirements of the Building Regulations 1997 - 2019 as indicated in Section 1.2 of this Certificate.

## 1.2 BUILDING REGULATIONS 1997 to 2019

**REQUIREMENT:**

***Part D – Materials and Workmanship***

**D3 –** POLYBASE 1200 Gauge (300 micron) DPM, as certified in this NSAI Agrément Certificate are comprised of proper materials fit for their intended use (see Part 4 of this Certificate).

**D1 –** POLYBASE 1200 Gauge (300 micron) DPM, as certified in this Certificate, meet the requirements for workmanship.

***Part A – Structure***

**A1 - Loading**

POLYBASE 1200 Gauge (300 micron) DPM, installed in accordance with this Certificate, will not adversely affect the designed safety and deflection characteristics of a building.

***Part B – Fire Safety***

**B3 – Internal Fire Spread (Structure)**

POLYBASE 1200 Gauge (300 micron) DPM, installed in accordance with this Certificate, will not adversely affect the control of fire and smoke within concealed spaces in the structure or fabric of a properly designed building.

***Part C – Site Preparation and Resistance to Moisture***

**C3 – Dangerous Substances**

POLYBASE 1200 Gauge (300 micron) DPM is certified for use as a damp proof membrane only and does not meet the requirements of a radon membrane.

**C4 – Resistance to Weather and Ground Moisture**

POLYBASE 1200 Gauge (300 micron) DPM, when used in accordance with Part 3 of this Certificate, will meet this requirement.

| Characteristic | Test Method | Result |
|---|---|---|
| Resistance to water penetration* | EN 1928 | Pass |
| Water vapour transmission* | EN 1931 | 130m |
| Tensile strength*:<br>- Longitudinal<br>- Transverse | EN 12311-2 | <br>160 N/50mm<br>125 N/50mm |
| Tear resistance*:<br>- Longitudinal<br>- Transverse | EN 12310-1 | <br>130N<br>140N |
| Durability against ageing* | EN 1296 | Pass |
| Resistance against chemicals (Alkali)* | EN 1847 | Pass |

**Table 1: Product Specification – Essential Characteristics**

## Part Two / Technical Specification and Control Data 2

### 2.1 PRODUCT DESCRIPTION

This Certificate relates to the POLYBASE 1200 Gauge (300 micron) DPM, which is a low-density polyethylene membrane for use as a damp proof membrane. The product specifications are shown in Table 1.

#### 2.1.1 Ancillary Materials

Ancillary items that can form part of the overall floor construction but which are outside the scope of this Certificate include:

- Radex Double Sided Sealant Tape: General purpose butyl tape for sealing of membranes. Technical data sheet is available from the Certificate holder on request.
- POLYBASE DPC: Damp-proof course, used to prevent water rising up a wall from the ground. POLYBASE DPC is CE marked to EN 14909[5]; a Declaration of Performance for the product is available from the Certificate holder on request.

#### 2.1.2 Service Penetrations

All service penetrations through the membrane must be adequately sealed. In the main, these penetrations will be pipe and column details, however any non-standard penetrations must also be sealed around. Advice on specific detailing should be sought from the manufacturer before continuing.

### 2.2 MANUFACTURE

POLYBASE DPM is manufactured by an extrusion/coating process to EN 13967[4].

#### 2.2.1 Product Quality Control

Quality control checks are carried out on the raw material, during and at the end of production. Checks on the final product include thickness, weight per roll and visual inspection.

The management systems of the manufacturer have been assessed and registered as meeting the requirements of EN ISO 9001 by TÜV Thüringen e.V.

### 2.3 DELIVERY, STORAGE AND MARKING

Rolls are supplied individually or on pallets in wrappers bearing the manufacturer's name and product description, NSAI Agrément identification mark, NSAI Agrément Certificate number and essential instructions for storage and installation.

### 2.4 INSTALLATION

#### 2.4.1 General

It is essential that the products are laid in accordance with the recommendations of IS EN 1996-1-1[1], BS 8102[2], and with this Certificate. Additional guidance on the use of damp proof membrane materials is given in BS 8000-4[3] and BS CP 102[6].

The product must be kept clean and free from dirt and grease. Unless the base is smooth, a surface blinding of soft sand (or similar material) should be used to prevent puncturing during installation or when the concrete or screed is being placed.

The product can be installed in all conditions normal to ground-floor slab construction. Where there is a risk of the ground becoming waterlogged, sub-soil drainage must be provided.

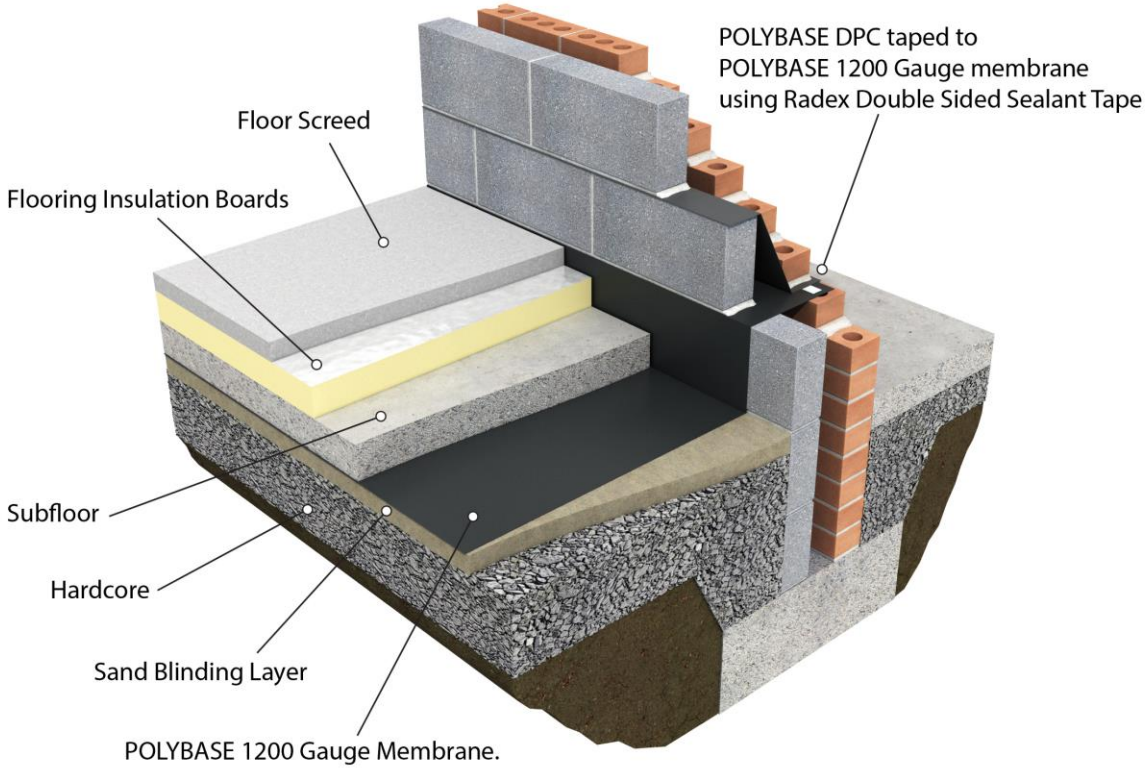
The type of floor finish to be used may limit the suitability of polyethylene damp-proof membranes. The Certificate holder should be contacted for guidance.

#### 2.4.2 Procedure

- Adjacent sheets are overlapped by at least 150mm and sealed with Radex Double Sided Sealant Tape.
- The POLYBASE 1200 Gauge (300 micron) DPM must be continuous and linked in with POLYBASE Damp-Proof Course (DPC) in the surrounding walls. Where necessary the

product should be used as a vertical DPC to link the two. The DPM and DPC joint must be overlapped by a minimum of 100 mm and sealed with Radex Double Sided Sealant Tape. Where there is doubt about the compatibility of materials, the advice of the Certificate holder should be sought.

- The membrane must be covered with a screed or other protective layer as soon as possible after installation. Care should be taken to ensure that the membranes are not stretched or displaced and to avoid the creation of areas of unsupported membrane when placing the concrete or screed, for example at internal angles.
- Perforations or punctures in the membrane must be patched with a product of identical thickness, lapped at least 150 mm beyond the limits of the puncture and sealed with Radex Double Sided Sealant Tape.




**Note: Illustration shows placement of POLYBASE DPM – insulation to meet the requirements of the Acceptable Construction Details (ACDs) is outside the scope of this Certificate.**

**Figure 1: Ground bearing slab**

## 3.1 GENERAL

POLYBASE 1200 Gauge (300 micron) DPM is suitable for use in concrete floors not subject to hydrostatic pressure, in accordance with the relevant clauses of IS EN 1996-1-1[1] and BS 8102[2]. The product can be installed as an over-site membrane, either between a sand blinded hardcore (50mm of sand minimum) bed and the base concrete, or on top of the base concrete and finished floor screed.

### 3.1.1 Resistance to water and water vapour

The membrane and the methods of jointing should provide an effective barrier to the passage of liquid water and water vapour from the ground.

### 3.1.2 Resistance to tear

The product has been tested for tear resistance and results are stated in Table 1. Care should be taken during installation, particularly when handling building materials and equipment over the surface and when placing concrete or screeds, since the membrane can be punctured by sharp objects. When installed as set out in this Certificate there should be minimum risk of puncture or tear damage. High density insulation (25kg/m$^3$) is an effective protection after laying.

### 3.1.3 Site conditions

The products may be installed in all conditions normal to ground floor slab construction. Where there is a risk of ground becoming waterlogged, sub-soil drainage must be provided in accordance with IS EN 1996-1-1[1] and BS 8102[2].

### 3.1.4 Underfloor heating

When used in accordance with the conditions set out in this Certificate, there will be no adverse effect on the membranes from underfloor heating under normal conditions. In other circumstances, the Certificate holder's advice should be sought.

## 3.2 CONSTRUCTION SETTLEMENT

Consideration should be given to differential and/or relative settlement of ground floor construction during the full life cycle of the building.

## 3.3 DURABILITY

When installed in accordance with this Certificate and subject to normal conditions of use, the membranes will provide an effective barrier which will be substantially impervious to the transmission of liquid water and water vapour for the life of the building. Long periods of exposure to UV light can reduce the effectiveness of a membrane. However, during storage, and when installed in accordance with this Certificate, the membranes will be protected from such exposure.

## 3.4 REUSE AND RECYCLABILITY

The membranes contain polymer materials which can be recycled.

## 4.1 TESTS / ASSESSMENTS

Various technical investigations were carried out on POLYBASE 1200 Gauge (300 micron) DPM to EN 13967[4]. Typical results are shown in Table 1.

## 4.2 OTHER INVESTIGATIONS

(i) Existing data on product properties in relation to fire, toxicity and environmental impact were assessed. When stored with normal care on site prior to installation these membranes do not present a significant fire or health hazard.

(ii) 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.

## 4.3 CE MARKING

The manufacturer has taken responsibility of CE marking the POLYBASE 1200 Gauge (300 micron) DPM in accordance with harmonised European Standard EN 13967[4]. An asterisk (*) appearing in this Certificate indicates that data shown is an essential characteristic of the product and declared in the manufacturers Declaration of Performance (DoP). Reference should be made to the latest version of the manufacturer's DoP for current information on any essential characteristics declared by the manufacturer.

**5.1** National Standards Authority of Ireland ("NSAI") following consultation with NSAI Agrément has assessed the performance and method of installation of the product/process and the quality of the materials used in its manufacture and certifies the product/process to be fit for the use for which it is certified provided that it is manufactured, installed, used and maintained in accordance with the descriptions and specifications set out in this Certificate and in accordance with the manufacturer's instructions and usual trade practice. This Certificate shall remain valid for five years from date of latest revision so long as:

(a) the specification of the product is unchanged.

(b) the Building Regulations 1997 to 2019 and any other regulation or standard applicable to the product/process, its use or installation remains unchanged.

(c) the product continues to be assessed for the quality of its manufacture and marking by NSAI.

(d) no new information becomes available which in the opinion of the NSAI, would preclude the granting of the Certificate.

(e) the product or process continues to be manufactured, installed, used and maintained in accordance with the description, specifications and safety recommendations set out in this certificate.

(f) the registration and/or surveillance fees due to NSAI Agrément are paid.

**5.2** The NSAI Agrément mark and certification number may only be used on or in relation to product/processes in respect of which a valid Certificate exists. If the Certificate becomes invalid the Certificate holder must not use the NSAI Agrément mark and certification number and must remove them from the products already marked.

**5.3** In granting Certification, the NSAI makes no representation as to;

(a) the absence or presence of patent rights subsisting in the product/process; or

(b) the legal right of the Certificate holder to market, install or maintain the product/process; or

(c) whether individual products have been manufactured or installed by the Certificate holder in accordance with the descriptions and specifications set out in this Certificate.

**5.4** This Certificate does not comprise installation instructions and does not replace the manufacturer's directions or any professional or trade advice relating to use and installation which may be appropriate.

**5.5** Any recommendations contained in this Certificate relating to the safe use of the certified product/process are preconditions to the validity of the Certificate. However the NSAI does not certify that the manufacture or installation of the certified product or process in accordance with the descriptions and specifications set out in this Certificate will satisfy the requirements of the Safety, Health and Welfare at Work Act 2005, or of any other current or future common law duty of care owed by the manufacturer or by the Certificate holder.

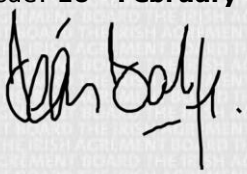
**5.6** The NSAI is not responsible to any person or body for loss or damage including personal injury arising as a direct or indirect result of the use of this product or process.

**5.7** Where reference is made in this Certificate to any Act of the Oireachtas, Regulation made thereunder, Statutory Instrument, Code of Practice, National Standards, manufacturer's instructions, or similar publication, it shall be construed as reference to such publication in the form in which it is in force at the date of this Certification.

## NSAI Agrément

This Certificate No. **20/0420** is accordingly granted by the NSAI to **Laydex Ltd** on behalf of NSAI Agrément.

Date of Issue: **10th February 2021**

**Signed** 

**Seán Balfe**
**Director of NSAI Agrément**

Readers may check that the status of this Certificate has not changed by contacting NSAI Agrément, NSAI, 1 Swift Square, Northwood, Santry, Dublin 9, Ireland. Telephone: (01) 807 3800. Fax: (01) 807 3842. www.nsai.ie

**Bibliography**


[1] IS EN 1996-1-1:1995 *Code of practice for use of masonry – Part 2: Masonry construction*

[2] BS 8102:2009 *Code of practice for protection of below ground structures against water from the ground*

[3] BS 8000-4:1989 *Workmanship on building sites – Part 4: Code of practice for waterproofing*,

[4] IS EN 13967:2012 *Flexible sheets for waterproofing – Plastic and rubber damp proof sheets including plastic and rubber basement tanking sheet – Definitions and characteristics.*

[5] IS EN 14909:2012 *Flexible sheets for waterproofing – Plastic and rubber damp proof courses – Definitions and characteristics.*

[6] BS CP 102:1973 *Code of practice for protection of buildings against water from the ground*.