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Agrément Certificate

19/5644

Product Sheet 4

VULCATHENE DRAINAGE SYSTEMS

VULCATHENE MECHANICAL LABORATORY DRAINAGE SYSTEM, FLOOR GULLIES

This Agrément Certificate Product Sheet⁽¹⁾ replaces Certificate 92/2805 (Product Sheet 4) and relates to Vulcathene Mechanical Laboratory Drainage System, Floor Gullies, a range of chemical-resistant polypropylene floor gullies suitable for the envisaged effluent including laboratory drainage systems.

(1) Hereinafter referred to as 'Certificate'.

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

Strength — the floor gullies will resist the likely loadings in service and during installation (see section 6).

Performance of joints — joints between floor gullies and pipes will remain watertight under movement and temperature (see section 7).

Resistance to chemicals — the floor gullies will be unaffected by the types and quantities of chemicals likely to be found in wastewater (see section 10).

Durability — the floor gullies are durable (see section 14).



The BBA has awarded this Certificate to the company named above for the products described herein. These products have been assessed by the BBA as being fit for their intended use provided they are installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Paul Valentine
Technical Excellence Director

Claire Curtis-Thomas
Chief Executive

Date of First issue: 5 July 2019

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.
Any photographs are for illustrative purposes only, do not constitute advice and should not be relied upon.*

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Regulations

In the opinion of the BBA, Vulcathene Mechanical Laboratory Drainage System, Floor Gullies, if installed, used and maintained in accordance with the provisions of this Certificate, can satisfy or contribute to satisfying the relevant requirements of the following Building Regulations (the presence of a UK map indicates that the subject is related to the Building Regulations in the region or regions of the UK depicted):



The Building Regulations 2010 (England and Wales) (as amended)

Requirement: H1(1)

Comment:

Foul water drainage

The products will convey the flow of foul or surface water and minimise the risk of blockages or leakage. See sections 6, 7, 8 and 10 of this Certificate.

Regulation: 7

Regulation: 7(1)

Comment:

Materials and workmanship (applicable to Wales only)

Materials and workmanship (applicable to England only)

The products are acceptable. See section 14 and the *Installation* part of this Certificate.

Regulation: 7(2)

Comment:

Materials and workmanship (applicable to England only)

The products passing through a fire rated wall or floor should not be used on buildings in England that have a storey at least 18 m above ground level and contain: one or more dwellings, an institution, a room for residential purposes (excluding any room in a hostel, hotel or boarding house), student accommodation, care homes, sheltered housing, hospitals or dormitories in boarding schools. See section 12 of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation: 8(1)(2)

Comment:

Durability, workmanship and fitness of materials

The products are acceptable. See sections 13.1 and 14 and the *Installation* part of this Certificate.

Regulation: 9

Standard: 3.7

Comment:

Building standards applicable to construction

Wastewater drainage

The products will satisfy the relevant requirements of this Standard, with reference to clauses 3.7.10⁽¹⁾ and 3.7.11⁽²⁾. See sections 6, 7, 8 and 10 of this Certificate.

(1) Technical Handbook (Domestic).

(2) Technical Handbook (Non-Domestic).



The Building Regulations (Northern Ireland) 2012 (as amended)

Regulation: 23(a)(i)(iii)(b)(i)

Comment:

Fitness of materials and workmanship

The products are acceptable. See section 14 and the *Installation* part of this Certificate.

Regulation: 80

Comment:

Sanitary pipework

The products will satisfy the requirements of this Regulation. See sections 6, 7, 8 and 10 of this Certificate.

Construction (Design and Management) Regulations 2015

Construction (Design and Management) Regulations (Northern Ireland) 2016

Information in this Certificate may assist the client, designer (including Principal Designer) and contractor (including Principal Contractor) to address their obligations under these Regulations.

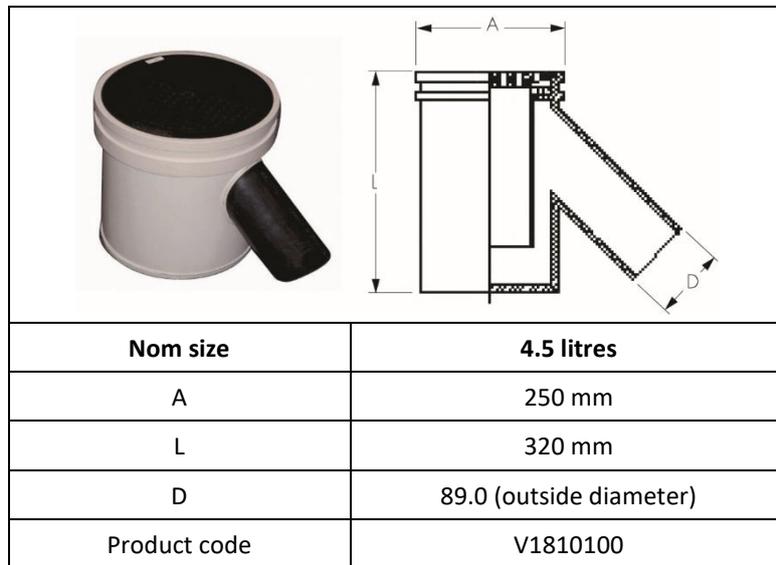
See section: 17 *Procedure* (17.1) of this Certificate.

Technical Specification

1 Description

Vulcathene Mechanical Laboratory Drainage System, Floor Gullies comprise a range of floor gullies, as shown in Figure 1. The floor gullies comprise a body, removable grating and lock-fit rodding access plug. The outlet is provided with a spigot end for connection to a 76 mm Vulcathene pipe fitting. The body has provision for 38, 51 or 76 mm alternative side/back inlet connections. The body, grating and access plug are injection moulded in black polypropylene.

Figure 1 Floor gullies



2 Manufacture

2.1 The components of the drainage system are manufactured from polypropylene by injection moulding.

2.2 As part of the assessment and ongoing surveillance of product quality, the BBA has:

- agreed with the manufacturer the quality control procedures and product testing to be undertaken
- assessed and agreed the quality control operated over batches of incoming materials
- monitored the production process and verified that it is in accordance with the documented process
- evaluated the process for management of nonconformities
- checked that equipment has been properly tested and calibrated
- undertaken to carry out the above measures on a regular basis through a surveillance process, to verify that the specifications and quality control operated by the manufacturer are being maintained.

2.3 The management system of Glynwed Pipe Systems Ltd has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2015 by BSI Quality Assurance (Certificate FM 34819).

3 Delivery and site handling

The floor gullies are robust but normal care is required in handling to prevent damage.

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on Vulcathene Mechanical Laboratory Drainage System, Floor Gullies.

4 Use

4.1 Vulcathene Mechanical Laboratory Drainage System, Floor Gullies are satisfactory for use in domestic, commercial and public buildings in accordance with ISO TR 10358 : 1993 and BS EN 12056-2 : 2000 for the conveyance of domestic drainage and sewage as is permitted to be discharged into public sewers by the Water Industry Act, 1991 (England and Wales), and sewage as is permitted and defined by the Sewerage (Scotland) Act 1968 and the Water and Sewerage Services (Northern Ireland) Order 2006.

4.2 The products are used in conjunction with Vulcathene pipes and fittings described in the additional Product Sheets of this Certificate.

4.3 Where the products are to be used in a laboratory application with chemical effluents not suitable for discharge into a public sewer, the building drainage should run to a holding tank. The local Water Authority should be consulted regarding details of the effluents likely to be discharged into the drainage system.

5 Practicability of installation

The products are designed to be installed by a competent general plumber, or a contractor, experienced with these types of products.

6 Strength



6.1 The floor gullies will have adequate strength to resist the loads normally encountered in handling, installation and backfilling.

6.2 The floor gully grating is suitable for use where subject to foot traffic only.

7 Performance of joints



The joints will not be adversely affected by thermal movement when correctly made.

8 Watertightness/airtightness



8.1 Joints with the pipeline remain watertight under conditions of pipeline movement in excess of those expected to occur in normal good drainage practice.

8.2 The seal of the lock-fit rodding access plug will withstand the application of an air pressure of 70 mm water gauge and will not therefore nullify the effect of the water seal in the floor gullies.

9 Flow characteristics

The satisfactory flow characteristics of the floor gullies minimise the risk of blockages. When measured with the flow entering the top grating the maximum flow capacity is 145 litres per minute.

10 Resistance to chemicals



10.1 The floor gullies are resistant to a wide range of noxious chemicals for laboratory applications. The suitability of the products for a particular application can be determined using ISO TR 10358 : 1993.

10.2 The floor gullies will be unaffected by the types and quantities of chemicals likely to be found in the drainage and sewage effluents defined in section 4.

11 Resistance to elevated temperatures

The floor gullies have adequate resistance to the temperatures likely to occur in drainage and sewage effluents.

12 Properties in relation to fire



The Regulations concerning the prevention of fire spread by fire-stopping must be taken into account if the systems pass through a fire rated wall or floor.

13 Maintenance



13.1 The floor gullies are cleaned by hand after removal of the grating.

13.2 The floor gullies provide adequate access for rodding the drain with conventional cane or polypropylene drain rods.

13.3 Care must be taken to avoid damage to the gully body when using rods with brass ferrules at the joints.

14 Durability



When used within the conditions and recommendations given in this Certificate, the floor gullies will have a serviceable life equivalent to conventional plastics drainage systems.

15 Reuse and recyclability

The polypropylene material of the products is fully recyclable.

Installation

16 General

Installation of Vulcathene Mechanical Laboratory Drainage System, Floor Gullies should be in accordance with BS EN 12056-2 : 2000 and the Certificate holder's *Technical Guide*.

17 Procedure

17.1 The W810 floor gully should be bedded on a minimum depth of 80 mm of 10 mm nominal sized aggregate having no sharp edges. The W811 floor gully should be bedded on identical aggregate to a minimum depth of 100 mm.

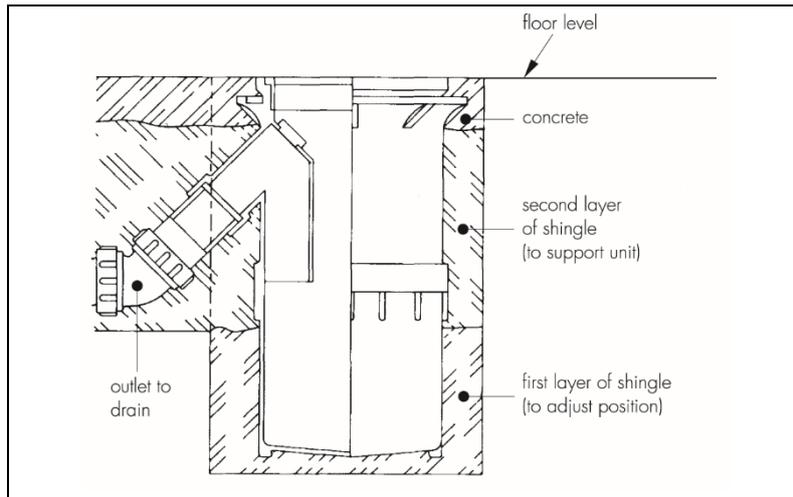
17.2 Backfilling is carried out using suitable granular material, as described in section 17.1. If preferred, the floor gully may be surrounded by a lean mix concrete.

17.3 The maximum depth to invert at which the floor gullies should be installed is 600 mm.

17.4 The outlet and inlet pipes must be protected by paving or concrete.

17.5 A typical installation detail is shown in Figure 2.

Figure 2 Installation detail



Technical Investigations

18 Tests

Tests were carried out to determine:

- dimensional accuracy
- maximum flow capacity
- liquid capacity
- ease of rodding and cleaning
- resistance of grating to surface loading
- impact resistance
- depth of water seal.

19 Investigations

19.1 An evaluation of data was made to assess:

- system design
- resistance to chemicals
- suitability of materials.

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

19.3 A survey was conducted of existing users of the system to establish the performance in use.

19.4 A site visit was conducted to establish the ease of installation.

Bibliography

BS EN 12056-2 : 2000 *Gravity Drainage Systems inside Buildings — Sanitary pipework, layout and calculation*

BS EN ISO 9001 : 2015 *Quality systems — Requirements*

ISO TR 10358 : 1993 *Plastics pipes and fittings — Combined chemical-resistance classification table*

20 Conditions

20.1 This Certificate:

- relates only to the product/system that is named and described on the front page
- is issued only to the company, firm, organisation or person named on the front page – no other company, firm, organisation or person may hold or claim that this Certificate has been issued to them
- 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.

20.2 Publications, documents, specifications, legislation, regulations, standards and the like referenced in this Certificate are those that were current and/or deemed relevant by the BBA at the date of issue or reissue of this Certificate.

20.3 This Certificate will remain valid for an unlimited period provided that the product/system and its manufacture and/or fabrication, including all related and relevant parts and 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.

20.4 The BBA has used due skill, care and diligence in preparing this Certificate, but no warranty is provided.

20.5 In issuing this Certificate the BBA is not responsible and is excluded from any liability to any company, firm, organisation or person, for any matters arising directly or indirectly from:

- 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
- actual installations of the product/system, including their nature, design, methods, performance, workmanship and maintenance
- any works and constructions in which the product/system is installed, including their nature, design, methods, performance, workmanship and maintenance
- any loss or damage, including personal injury, howsoever caused by the product/system, including its manufacture, supply, installation, use, maintenance and removal
- any claims by the manufacturer relating to CE marking.

20.6 Any information relating to the manufacture, supply, installation, use, maintenance and removal 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, maintained and removed. It does not purport in any way to restate the requirements of the Health and Safety at Work etc. Act 1974, or of any other statutory, common law or other duty which may exist at the date of issue or reissue 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.