

1. SCOPE

This schedule specifies the requirements for the Camstopper® Pro range of drain stoppers, manufactured by Norham (France) and Norham Plastics (UK), for the temporary stopping of flows from the end of domestic drains and small adoptable sewers made of clay or plastic in sizes between 200mm and 520mm n.d.

2. PRODUCT DESCRIPTION

2.1 Introduction

The Camstopper® Pro comprises an aluminium base and top plate, 'T' bar and rotary lever in steel, and an anti-friction washer in polyamide between the top plate and the lever. An EDPM rubber seal is fitted between the periphery of the base and top plate.

The Pro range stopper is positioned in the host pipes. The rubber seal is expanded until it contacts the host pipe wall by rotating the lever arm so that the seal is squeezed between the top and base plate. The seal is further expanded to lock the stopper in position by engaging the lever mechanism. The 'T' bar prevents the stopper from moving out of vertical alignment.

2.2 Relevant Standards

The following relevant standards are identified:

- BS EN 1610: 1998⁽¹⁾
- BS EN 752: 2008⁽²⁾
- BS EN 681:2000⁽³⁾

2.3 Approval History

The Camstopper® Pro range has been WRc Approved™ since 2012.

- PT/327/0312

3. REQUIREMENTS AND TESTING

3.1 Product Design

There are no product standards for drain stoppers. BS EN 1610: 1998⁽¹⁾ and BS EN 752:2008⁽²⁾ are the leading standards for the design and construction of gravity sewerage and drainage pipes. This assessment schedule has taken into account the requirements of these standards, together with those of the relevant pipe standards and the performance claims of the product.

3.2 Type Testing

Dimensions and tolerances

The Camstopper® Pro range will be assessed on the diameters below, which are considered representative of the product diameter range:

- Pro 300W (280mm to 310mm)
- Pro 400W (375mm to 400mm).

Materials specifications

Materials shall meet the requirements of:

- BS EN 752:1998
- BS EN 681:2000

There are no product standards for Aluminium fittings in drains and sewers.

General requirements

The Camstopper® Pro shall resist structural damage if dropped a maximum of 5 metres to a concrete surface.

The leak tightness of the Camstopper® Pro shall maintain a pressure of 0.5 bar (for diameters < 350mm) or 0.3 bar (for diameters ≥ 350mm) for a period of 30 minutes without movement or failure when installed in rigid and flexible pipes and when tested in accordance with BS EN 1610:1998.

Tests shall be carried out on the new condition surfaces of each pipe material for which the product is designed.

3.3 Manufacture

The Camstopper® Pro range is assembled using bought-in components. To ensure the quality and performance of the Camstopper Pro range, the assembly process shall include appropriate systems for:

- Verification that component parts received are to specification.
- Inspection of component parts.
- Handling and storage of all component materials and finished units.

The production of the Camstopper® Pro and related Quality Control procedures⁽⁴⁾ shall comply with requirements to ensure the stated performance of the product is reliably achieved.

3.4 Installation

When installed in accordance with the installation documentation⁽⁵⁾, the installation shall be practicable and suitable for conditions that could reasonably be expected on site.

4. APPROVAL

The Camstopper® Pro range has been audited and has successfully met all of the requirements stated within this assessment schedule.

Signed:

5. REFERENCES

1. BS EN 1610 Construction and testing of drains and sewers:1998
2. BS EN 752 Drain and sewer systems outside buildings:2008
3. BS EN 681-2:2000 Elastomeric seals. Material requirements for pipe joint seals used in water and drainage applications. Thermoplastic elastomers
4. Norham – Norham Plastic Quality Control manual
5. Norham – Norham Plastic Installation instructions