PT/534/0724-AS (July 2024)

Assessment Schedule for the HS® Drainage Pipe System as Manufactured by Funke Kunststoffe GmbH

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1. SCOPE

This schedule specifies the requirements for the HS® Drainage Pipe System as manufactured by Funke Kunststoffe GmbH for gravity sewer drainage.

2. PRODUCT DESCRIPTION

2.1 Introduction

The HS® Drainage Pipe System is a uPVC gravity sewer system and is available from DN/OD 110 to DN/OD 800. Pipes can be manufactured with pipe stiffness of SN12 (12 kN/m^2) and SN16 (16kN/m^2) up to 5m in length.

Table 1 sets out the HS® Drainage Pipe System in component groupings that are included for the approval.

Table 1: Schedule of HS® Drainage Pipe System included in approval

Component: Pipes	Diameter (mm)
Plain ended and single socket SN 12 & 16	110-800
Rocker pipe (400–800m)	400-800

For HS® Drainage Pipe System Fittings see assessment schedule PT/535/0724.

2.2 Applicable standards

The following standard is applicable to this product:

- BS EN 1401-1:2019+A1:2023 (1)

2.3 Approval History

The HS® Drainage Pipe System was originally awarded WRc Approved™ certification in July 2019:

- PT/444/0719.

3. REQUIREMENTS AND TESTING

3.1 General

The HS® Drainage Pipe System shall comply with the requirements of BS EN 1401-1:2019+A1:2023.

3.2 Material

Materials must conform to the requirements of BS EN 1401-1:2019+A1:2023, Clause 5.

3.3 Type Testing

The HS® Drainage Pipe System shall complete the following testing as required by BS EN 1401-1:2019+A1:2023:

- Compound Characteristics.
- Ring stiffness.
- Creep ratio.
- Chemical resistance.
- Abrasion resistance.
- Hydraulic Roughness.
- Diametric deflection.

In addition to the standard(s) quoted in Section 2.2, the HS® Drainage Pipe System shall comply with the test requirements detailed below.

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The following tests listed in WIS 4-35-01[2] shall be carried out on samples, as detailed below:

- Appendix A Resistance to Internal Puncture.
- Appendix B Resistance to High Pressure Water Jetting.
- Appendix C Longitudinal bending.

3.4 Adhesives

Adhesives must conform to the requirements of BS EN 1401-1:2019+A1:2023, Clause 12.

3.5 Sealing rings

Sealing rings must conform to the requirements of BS EN 1401-1:2019+A1:2023, Clause 10.

3.6 Marking

Pipe markings must conform to the requirements of BS EN 1401-1:2019+A1:2023, Clause 13.

3.7 Manufacture

To ensure the quality and performance of the HS® Drainage Pipe System, the manufacturing process shall include appropriate systems for the:

- Specification of component materials.
- Detailed drawings for the pipe products.
- Verification component materials received are to specification.
- Handling and storage of all component materials and finished units.
- Manufacture / assembly of the HS® Drainage Pipe System, and;
- Fabrication and quality control of workmanship.

The production of the HS® Drainage Pipe System and related quality control procedures shall comply with requirements to ensure the stated performance of the product is reliably achieved.

3.8 Installation

When installed in accordance with the installation documentation[3], the HS® Drainage Pipe System shall be reasonably expected to perform as described.

4. APPROVAL

The HS® Drainage Pipe System has been audited and successfully met all the requirements stated within this assessment schedule.

Signed:

Valid until 30th July 2029

5. REFERENCES

1. BS EN 1401-1:2019+A1:2023 Plastics piping systems for non-pressure underground drainage and sewerage. Unplasticized poly(vinyl chloride) (PVC-U) - Specifications for pipes, fittings and the system.

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2. WIS 4-35-01 Issue 2 Specification for thermoplastics structured wall pipes – supplementary test requirements.

3. Einbauanleitung HS®-Kanalrohrsystem, May 2020.

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