

## 1. SCOPE

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

## 2. PRODUCT DESCRIPTION

### 2.1 Introduction

The HS<sup>®</sup> Drainage Pipe System Fittings are part of the HS<sup>®</sup> Drainage Pipe System uPVC gravity sewer system and are available from DN/OD 110 to DN/OD 800. The fittings can be used in conjunction with the Funke HS<sup>®</sup> Drainage Pipe System and are compatible with other solid wall pipe systems.

Tables 1-3 set out the HS<sup>®</sup> Drainage Pipe System Fittings component groupings for the approval.

**Table 1: Schedule of HS<sup>®</sup> Drainage Pipe System bends included in approval**

Component: Bends	Diameter (mm)
Bend 15°, 30°, 45° 1 socket	400-800
Bend 15°, 30°, 45° 2 socket	110-315
Swept 87° 2 socket	110
Short 15°, 30°, 45°	110-160

**Table 2: Schedule of HS<sup>®</sup> Drainage Pipe System couplers included in approval**

Component: Couplers	Diameter (mm)
Double socket coupler with stop	110-630
Double socket coupler without stop	110-800

**Table 3: Schedule of HS<sup>®</sup> Drainage Pipe System ancillary fittings included in approval**

Component: Ancillary fittings	Diameter (mm)
Vario socket	110-200
Clay adaptor	110-160
Junction 45° 3 sockets	110-315
Junction 45° 2 sockets	110-800
Junction 87° 2 & 3 sockets	110-500
Vario junction equal base 90°	315-800
Vario junction base 90°	160-500
Junction K90 (10 variants)	160-500
Level invert reducer	160-800
Cap	250-315
Socket plug	110-800
Access pipe	250-500
Manhole socket	110-800
Vario chamber socket	160-200

The HS<sup>®</sup> Demarcation, Control and standard DN800 chambers are not covered in this assessment schedule.

For the HS<sup>®</sup> Drainage Pipe System see assessment schedule PT/534/0724.

### 2.2 Applicable standards

The following standard is applicable to this product:

- BS EN 1401-1:2019+A1:2023<sup>(1)</sup>

### **2.3 Approval History**

The HS<sup>®</sup> Drainage Pipe System Fittings were originally awarded WRc Approved™ certification in July 2019:

- PT/443/0719.

## **3. REQUIREMENTS AND TESTING**

### **3.1 General**

The HS<sup>®</sup> Drainage Pipe System Fittings 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<sup>®</sup> Drainage Pipe System Fittings 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 quoted in Section 2.2, the HS<sup>®</sup> Drainage Pipe System Fittings shall comply with the test requirements detailed below.

The following tests listed in WIS 4-35-01<sup>(2)</sup> 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<sup>®</sup> Drainage Pipe System Fittings, the manufacturing process shall include appropriate systems for the:

- Specification of component materials.
- Detailed drawings for the pipe and fittings.
- Verification component materials received are to specification.
- Handling and storage of all component materials and finished units.

**PT/535/0724-AS (July 2024)**

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



*independent certification of your products & services*

- Manufacture / assembly of the HS® Drainage Pipe System Fittings, and;
- Fabrication and quality control of workmanship.

pipes – supplementary test requirements.

3. Einbauanleitung HS®-Kanalrohrsystem, May 2020.

The production of the HS® Drainage Pipe System Fittings 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<sup>(3)</sup>, the HS® Drainage Pipe System Fittings shall be reasonably expected to perform as described.

## **4. APPROVAL**

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

Signed:

A handwritten signature in black ink, appearing to be 'G.L.' followed by a horizontal line.

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.
2. WIS 4-35-01 Issue 2 Specification for thermoplastics structured wall