# PT/502/1022 - AS (May 2026)

# Assessment Schedule for the Inpipe UV CIPP Full-Length GFRP Liner System as manufactured by Inpipe Sweden AB

*Independent certification of your products & services*

## 1. SCOPE

This schedule specifies requirements for the Inpipe UV CIPP Full-Length GFRP Liner System as manufactured by Inpipe Sweden AB. It is applicable to the renovation of gravity sewers and drains.

The Inpipe UV CIPP Full-Length GFRP Liner System has a range of internal diameters from 150mm to 1800mm and egg-shaped pipes between 200mm by 300mm (DN 252mm equivalent) and 1400mm x 2100mm (DN 1770mm equivalent).

The schedule is not applicable to:

- The installation or reconnection of the laterals.
- Performance of the liner end seals.

## 2. PRODUCT DESCRIPTION

### 2.1 Introduction

The system comprises a glass fibre reinforcement woven sleeve which is factory impregnated with an ultra violet (UV) light curing polyester or vinyl ester resin. When installed and cured this forms a full length cured-in-place structural liner within the host pipe.

Installation is either by air inversion for diameters up to 500mm or winched-in for diameters up to 1800mm.

### 2.2 Relevant Standards

The following relevant standard was identified for cured-in-place pipe liners:

- BS EN ISO 11296-4:2018+A1: 2021[1].

### 2.3 Approval History

This is the first re-approval of the Inpipe UV CIPP Full-Length GFRP Liner System, the previous approval was:

- PT/408/1017.

This approval supersedes the previous issue.

## 3. REQUIREMENTS AND TESTING

### 3.1 Structural Design

The Inpipe UV CIPP Full-Length GFRP Liner Systemshall be designed in accordance with either:

- Swedish P101 Schaktfritt byggande av markförlagda VA-ledningar av plast [2].
- DWA-A 143-2: 2015[3] or ASTM F1216-21[4].

### 3.2 Type Testing

Appearance: The internal surface of the liner shall be smooth, clean and free from scoring, cavities, wrinkling and other surface defects that would prevent the liner from meeting the general fitness for purpose requirement.

Mechanical Characteristics Testing: Mechanical testing requirements of BS EN ISO 11296-4 are listed in Table 1.



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**Table 1 Mechanical characteristics**

| Parameter | Requirement |
|---|---|
| Short-term flexural modulus ISO EN 1228 (full ring<br>ISO EN 178 (3 point bend) | Declared: 9,500 MPa<br>Declared: 9,000 MPa |
| Long-term flexural modulus ISO EN 1228 | Declared: 6,800 MPa |
| Short-term stress at first break | Declared 220 MPa |
| Long-term flexural stress | Declared: 156 MPa |
| Long-term strain corrosion | Minimum >= 0.45%<br>Declared 1.33% |

Leaktightness testing: When tested in accordance with the WIS 4-34-07[5] test procedure, the Inpipe UV CIPP Full-Length GFRP Liner System utilising the Masterstop SK MasterMastic PU Quellpaste end seals, achieved a Class 1 pass (no infiltration) for Test 1 (Type C, liner only).

When tested in accordance with the WIS 4-34-07 test procedure, the Inpipe UV CIPP Full-Length GFRP Liner System utilising the Masterstop SK MasterMastic PU Quellpaste end seals and the Cosmic Top Hat connection collar, achieved a Class 2 [20%] pass for Test 3 (Type B, liner with connection collar).

Quality control tests: A quality control test regime shall be based upon ISO-9001 and DIBt certification requirements.

### 3.3 Manufacture

To ensure the quality and performance of the Inpipe UV CIPP Full-Length GFRP Liner System, the manufacturing process shall include appropriate systems for:

- Verification that component materials received are to specification;
- Handling and storage of all component materials and finished linings;
- Records of manufacture;
- Inspection and maintenance of manufacturing equipment.

The production of the Inpipe UV CIPP Full-Length GFRP Liner System and related Quality Control procedures shall comply with requirements to ensure the stated performance of the product is reliably achieved.

### 3.4 Installation

When installed in accordance with the Inpipe UV CIPP Full-Length GFRP Liner System installation manual[6], the installation shall be practicable and suitable for conditions that could reasonably be expected on site.

## 4. APPROVAL

The Inpipe UV CIPP Full-Length GFRP Liner System has been audited and has successfully met all of the requirements stated within this assessment schedule.

Signed:

Valid until 10th October 2027

## 5. REFERENCES

1. BS EN ISO 11296-4 Plastic piping systems for renovation of underground



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non-pressure drainage and sewerage networks. Lining with cured-in-place pipes, 2018+A1:2021.

2. Swedish P101 Schaktfritt byggande av markförlagda VA-ledningar av plast.

3. DWA-A 143-2: 2015. Rehabilitation of dewatering systems outside buildings Part 2: Static calculation for the rehabilitation of sewage pipes and pipes using lining and assembly methods.

4. ASTM F1216 – 21 Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube.

5. WIS 4-34-07 October 2025: Issue 1 Specification for leak tightness testing of cured-in-place-pipe lining systems for gravity sewer rehabilitation.

6. Inpipe Sweden AB liner installation manual, Version 2021:05.



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