PT/564/0925-AS (September 2025)

Assessment Schedule for the iMPREG® GL01 styrene free full length UV-cured liner system as manufactured by iMPREG GmbH

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1. SCOPE

This schedule specifies the requirements for the iMPREG® GL01 styrene free full-length UV cured-in-place pipe (CIPP) liner system as manufactured by iMPREG GmbH for the renovation of gravity drains and sewers.

It is applicable to circular host pipes with an internal diameter between 250 mm and 1,262mm and non-circular host pipes with a major diameter from 200-300 mm to 1000-1,500 mm.

This schedule does not cover:

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

2. PRODUCT DESCRIPTION

2.1 Introduction

The iMPREG® GL01 styrene free full-length UV cured-in-place pipe (CIPP) liner system comprises of a glass fibre reinforced woven sleeve which is factory impregnated with an ultra-violet (UV) light curing polyester or vinyl ester thermosetting resin. When installed and cured this forms a full length cured-in-place structural liner within the host pipe.

2.2 Applicable standards

The following standard is applicable to this product:

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

2.3 Approval History

This is the second re-approval of the iMPREG® GL01 styrene free full-length UV cured-in-place pipe (CIPP) liner system. This approval supersedes the previous approvals:

- PT/415/0118.
- PT/461/0920.

3. REQUIREMENTS AND TESTING

3.1 Requirements

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 iMPREG® GL01 styrene free full-length UV cured-in-place pipe (CIPP) liner system from meeting the general fitness for purpose requirement.

3.2 Structural Design

The liner can be designed using any of the recognised international design codes dependent upon the country of installation. The iMPREG® GmbH default design for the liner is DWA-A143.2[(2)] or ASTM F1216-24[(3)].

3.3 Type Testing

Mechanical Characteristics Testing: The iMPREG® GL01 styrene free full-length UV cured-in-place pipe (CIPP) liner system shall comply with the following test requirements which are based upon BS EN 11296-4:2018+A1:2021.

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Table 1 iMPREG® GL01 styrene free liner mechanical characteristics

Characteristic	Declared Value
Short-term ring stiffness	10,270 MPa
Long-term ring stiffness	6,625 MPa
Short-term flexural modulus	9,500 MPa
Short-term stress at first break	145 MPa
Long-term stress at first break	94 MPa
Long-term strain corrosion	0.451% extrapolated at 50 years
Reduction factor after 10,000 hrs	1.55

3.4 Manufacture

To ensure the quality and performance of the iMPREG® GL01 styrene free lining, the manufacturing process shall include appropriate systems for the:

- Specification of component materials;
- Verification component materials received are to specification;
- Handling and storage of all component materials and finished linings;
- Detailed drawing(s) / schedule(s) for manufacture;
- Manufacture / assembly of iMPREG® GL01 styrene free linings;; and
- Fabrication and quality control of workmanship.

The production of iMPREG® GL01 styrene free linings and related quality control procedures shall comply with requirements to ensure the stated performance of the product is reliably achieved.

3.5 Installation

When installed in accordance with the installation documentation[4,5], the iMPREG® GL01 styrene free full-length UV cured-in-place pipe (CIPP) liner system shall be reasonably expected to perform as described.

4. APPROVAL

The iMPREG® GL01 styrene free full-length UV cured-in-place pipe (CIPP) liner system has been audited and successfully met all the requirements stated within this assessment schedule

Signed:

Valid until 09 September 2025

5. REFERENCES

1. BS EN ISO 11296 Part 4:2018+A1:2021 Plastic piping systems for renovation of underground non pressure drainage and sewerage networks. Part 4 Cured-in-place-pipes.

2. DWA-A 143.2- Rehabilitation of drainage systems outside

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buildings - Part 2: Static calculation for the rehabilitation of wastewater pipes and pipes with lining and assembly methods (July 2015

3. ASTM F1216-24 Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin Impregnated Tube.

4. Installation manual for the IMPREGLiner UV curing process 13.06.2025_Version6.

5. Curing parameters for the IMPREGLiner UV curing process, 13th June 2025, Version 6.

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