



Interline® UV

UV Curing Technology



Interline® UV

Interline® UV (Ultra-Violet) is a cured in place pipe (CIPP) liner suitable for use in wastewater, storm water, and industrial piping rehabilitation. It is available for installation in pipes range from 150mm to 1,300mm. This system provides higher mechanical qualities, assured quality control with the added benefit of no styrene discharge into the environment when compared with traditional CIPP systems.

The strength of the liner is dependent on the liner wall thickness and can be selected to suit design or structural requirements.

Interline® UV liner is constructed from a unique Glass-Fibre Reinforced Plastic (GRP) wall construction, the UV cured system provides a long-term structural solution, with proven physical rehabilitation properties for gravity pipelines.

After installation the liner is inflated with compressed air then a UV light train is inserted through the end elements and driven through to the opposite end of the inflated liner. The light train is then drawn backwards towards the starting element at a controlled speed, curing the liner as it travels.

The final step is to trim both ends and open any lateral services. Exact reinstatement of lateral connection openings is carried out immediately after the curing process.

Interline® UV is an environmentally friendly system using only air and UV light to cure the liner, compared with hot water, and steam resins that may discharge styrene contaminated water into the environment.

Interline® UV Installation

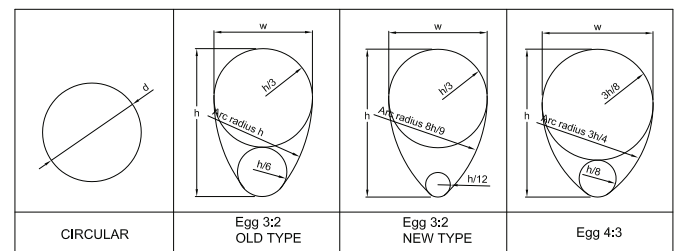
1. The pipeline requiring renewal is measured and the GRP liner is manufactured to suit
2. The pipeline is cleaned and prepared for lining
3. The installation site is established at the existing access chamber or access point
4. The impregnated liner is delivered to site and installed by winching the liner through the host pipe
5. The liner is then inflated with compressed air until fully expanded. At this point a UV light train is pulled through at a controlled speed, curing the pipe as it travels
6. After curing the liner, the ends are trimmed and sealed to the access chamber wall and any laterals are immediately reconnected by robotic cutting.



Flexible Liner

Interline® UV offers a strong and flexible liner that:

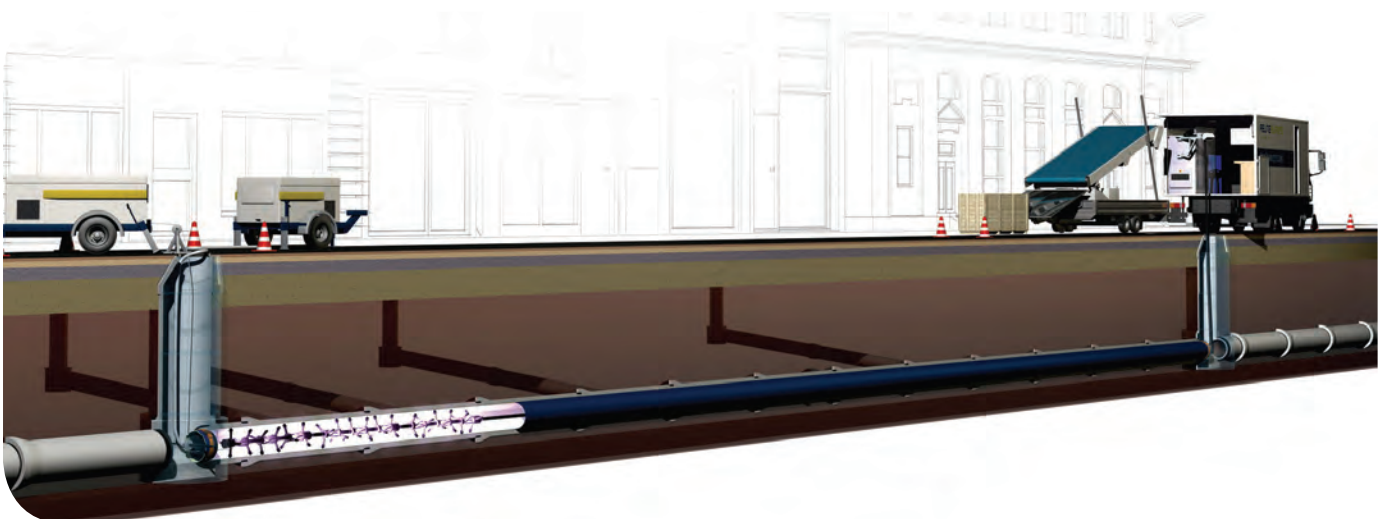
- Provides a "close-fit" with the host pipe so the loss of cross sectional area is minimised
- Conforms to the geometry of the host pipe so both circular and non-circular sections (e.g. ovoids) can be lined
- Can negotiate bends and changes in directions up to 15 degrees
- Can be installed in pipelines made of any material



Interline® UV is suitable for all circular and ovoid pipe shapes, including pipes with bends and changes in diameter.

Interflow: The Total Solutions Provider

Interflow is committed to offering its clients a cost effective solution in all situations. Interline® UV forms part of the range of products within Interflow's product offering. Interline® UV is compatible with Interflow's lateral sealing, patching and lateral lining products.



Environment

Renewing deteriorated pipelines has a positive effect on the environment as it reduces potential sewage exfiltration, reduces ground water infiltration and eliminates the risk of pipeline collapse. Interline® UV is the latest product offering that achieves these environmental benefits without the need for excavation.

The typical installation process of Interline® UV involves winching the GRP liner into the host pipe, which is then gradually inflated with compressed air until fully expanded. At this point a UV light train is pulled through at a controlled speed, curing the pipe as it travels. By using UV light the installation footprint is quite small when compared to traditional CIPP lining as the consumption of energy during curing phases is significantly lower compared with traditional curing systems e.g. the use of hot water or steam. This is not only an important cost consideration but also a significant environmental consideration particularly with regards to the reduction of CO2 emissions.

Since the liner is cured via UV light, once cured, there are no contaminants like styrene to be discharged.

Community

Traditionally deteriorated ovoid pipes and circular pipes with bends and changes in direction have been difficult to relin. This has resulted in disruptive dig and replace methods required to renew these pipelines.

Interline® UV provides a trenchless lining solution for rehabilitating ovoid pipes and services with bends thereby reducing the need for excavation.

Fewer excavations results in less disruption to the community.

Safety

Interflow strongly encourages safe work practices and protecting the safety of the community and our workers is our priority.

The use of Interline® UV eliminates the use of hot water or steam to cure the liner resulting in a safer rehabilitation delivery option when compared to other products on the market.

Interflow has applied its successful safety management systems to this product and process.

Our policy of aiming to have zero harm on the environment, community and our workers is continued with Interline® UV.



Interline® UV

UV curing technology
for the relining of
deteriorated pipelines

Experience

Interflow has been using trenchless products to renew pipelines since 1991 and remains committed to providing products and services that offer the greatest value to its clients. Interline® UV is the latest addition to the suite of pipeline rehabilitation products offered by Interflow.

With the addition of Interline® UV Interflow can now offer a competitive trenchless solution in a wider range of circumstances.



Case Study

Interflow has renewed 438 metres of 736mm x 533mm ovoid sewer in Sydney's Double Bay. This was the first time that Interflow had renewed an ovoid pipe of this size using the Interline® UV GRP structural liner.

Interline® UV was determined as the best solution for this renewal as the pipeline was situated in a challenging urban area with difficult access, requiring a small site set up.

Having a pipe depth of 20 metres also meant that greater strength from the liner was required and standard CIPP felt could not be made stiff enough. As such the new Interline® UV liner was the only product capable of meeting the exact requirements of this job.

The project was completed in accordance to the client's specifications and plan. The ovoid pipe was renewed with only minimal disruption to residences or the community and no impact on regular week day road users.



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