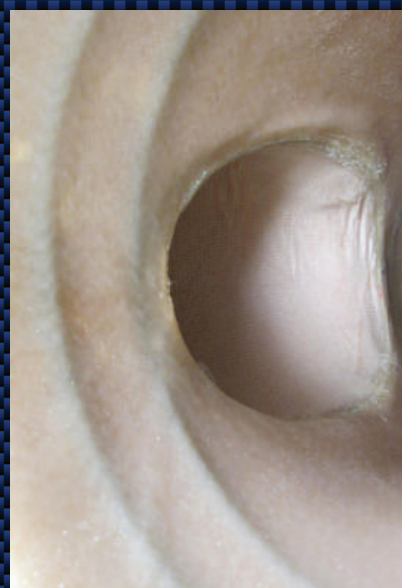


DESIGNED USING THE STANDARD PRACTICE FOR REHABILITATION OF A SEWER SERVICE LATERAL ASTM-F2561-11

InnerSeal™ by Perma-Liner™ is the trenchless cured in-place pipe system technology that has been used in collection systems throughout North America to repair the connection from the mainline while simultaneously renewing the lateral. InnerSeal™ is installed without the need for digging and replacing with new pipe. With the use of compression gaskets and with more than 50,000 successful installations, the technology has been proven to be the most effective, least disruptive, longest lasting, lateral rehabilitation system.

Two hydrophilic O-rings are positioned on each side of the lateral connection, embedded between the mainline tube and the main host pipe and expand 3 to 5 times their original size in the presence of water. The full-circle compression gaskets provide for a permanent, verifiable non-leaking connection and are compatible with all types of pipe and pipe lining materials.



about us

Perma-Liner™ (PLI) is the leading manufacturer and supplier of trenchless pipeline rehabilitation equipment & materials in North America. Since 1999 PLI has developed systems to rehabilitate existing sewer systems without excavation, in most cases.

Our experience in the CIPP (Cured-In-Place-Pipe) industry has allowed Perma-Liner™ to design, patent, and manufacture state of the art technology. Based on the design of the equipment and materials, PLI has the ability to offer compact "User Friendly" systems. Perma-Liner™ provides complete "Turn-Key" Trailer or Truck Build-Out Packages, Certification/Training, Technical Support, Marketing Support and Specification & Design Support.

Your success is our success! Perma-Liner™ does not charge Franchise Fees or Royalties. Perma-Liner™ succeeds when you succeed! We provide a solid partnership plan that delivers real savings to our clients.

**PERMA-LINER™
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INTRODUCING **INNERSEAL™** CIPP LATERAL CONNECTION SOLUTION

AN ENGINEERED CIPP SOLUTION FOR REPAIRING DEFECTIVE
LATERALS AND THE CONNECTION TO THE MAINLINE

MEETS THE ASTM F2561-11 STANDARD

LICENSED PATENTED TECHNOLOGY



COMMON PROBLEMS

- Manhole to manhole liners put in place with vinyl ester or polyester resins shrink over time.
- Shrunken liners have annular space allowing infiltration at the service connections.
- Hammer taps have not been sealed at the main allowing infiltration.
- Mainlines have settled breaking the connection at the service lateral.
- Over cut mainline services have compromised the connection.

The InnerSeal™ system is the solution for common lateral to main connection problems. The InnerSeal™ is a one-piece, structural, new continuous Main to Lateral CIPP that completely seals the connection. The mainline portion of the InnerSeal™ material is permanently marked with a Lateral Identification that includes specific information: physical address, the date of liner manufacture, and the name of the installation contractor.



CUSTOM TRAILER WRAPS

A "rolling billboard" is one of the most cost-effective tools to market your business.



CUSTOM BUILD-OUTS

The Perma-Liner™ custom turn-key trailers are built-out to contain everything you need, making this your shop on wheels.



The InnerSeal™ Turn-Key Trailer is a climate controlled workspace that features a vacuum pump for easy resin impregnation as well as a refrigeration unit for convenient onsite chemical storage.

Liner material is vacuum impregnated with resin, loaded onto the skeleton and the hydrophilic O-rings are attached around the liner at the main and at the termination of the lateral liner.

The InnerSeal™ positioning robot, skeleton, and train assembly is lowered into the main through the manhole

The operators room, which is also climate controlled, operates the robotic positioning of the InnerSeal™ and also allows observation of the lateral inversion.

COMPLETE SEAL

Since both the main and lateral are tubular, everyday engineering design calculations are applicable using flexural modulus, flexural strength, liner thickness, soil modulus, depth and other commonly used design factors. The InnerSeal™ uses preformed hydrophilic rubber O-rings embedded between the host pipe and the liner to provide a permanent and verifiable non-leaking connection. This compression gasket seal is compatible with all types of piping including polyethylene and olefin based coatings that are common on Manhole to Manhole CIPP linings.

