

Concrete Protection Liner (CPL): What you need to know

On September 17, 2024, Titan hosted a Concrete Protection Academy seminar in Vancouver. You can explore some of the topics discussed at this event. Titan offers technical talks if you want to learn more about Concrete Protection for wastewater infrastructure. [Click here to book yours.](#)

1. Mitigate Risks to Wastewater Infrastructure:

The main risk to infrastructure is corrosion from hydrogen sulfide. Engineers can mitigate this risk by using an embedded Concrete Protection Liner, which creates a barrier that prevents bacteria from colonizing inside the plastic, thus preserving the integrity of the concrete.

2. The Purpose of Concrete Protection Liner:

Concrete Protection Liner is crucial for safeguarding critical infrastructure, especially in aging structures, by retrofitting and refurbishing existing systems. It also plays a pivotal role in designing sustainable infrastructure for the future, preventing corrosion and infiltration.

3. The Best Way to Protect Concrete in Corrosive Environments:

Concrete Protection Liner is an embedded liner with anchors. This ensures a permanent bond with the structure, avoiding the need for frequent replacements associated with spray coatings. It's made with high-density polyethylene (HDPE), an excellent material choice for providing resistance to various waste streams and offering dual protection against microbial corrosion and infiltration.

4. Key Benefits and Features of Concrete Protection Liner:

- Provides the highest degree of chemical resistance and excellent protection against mechanical damage.
- Minimal lateral movement due to thermal expansion.
- Can be custom prefabricated to a specific dimension or geometric shape.
- Can be butt welded, extrusion welded, or electrofusion welded.



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5. No-Dig Options for Manhole Rehabilitation:

Utilize advanced technologies like Trenchless CPL Manhole Rehabilitation Solution for a true no-dig, trenchless option. This involves creating a 3D image of the manhole's interior, fabricating a new base and inverts offsite, and installing them without excavation. This process can be completed within a day.

6. Titan's CPL Prefabrication and Installation Service:

Titan offers precision-cut, prefabricated CPL tubes for quick and efficient installation in precast concrete pipe, complimented with seaming of concrete pipe joint installation service. Unlike other methods that require on-site fabrication and measuring, this plug-and-play approach streamlines the process.

7. Time and Personnel Required for Manhole Rehabilitation:

Only two personnel are needed for manhole rehabilitation using the Trenchless CPL Manhole Rehabilitation Solution. With quick-setting grout, the process can be completed in a day or less, significantly faster than the conventional dig and replacement method.

8. Key Differences Between Spray Coatings and Embedded Liners:

Spray coatings provide a surface bond, while embedded Concrete Protection Liner becomes a structural part of the concrete, ensuring long-term effectiveness without future maintenance costs. Spray coatings are affected by humidity and moisture content within the concrete and offer no resistance to back pressure, failing to meet industry standards.

Contact us

Request a quote, book a project specific consultation, or get free pre-design assistance.

We welcome the opportunity to work with you on your next infrastructure project. Send us a message, and our team will get back to you promptly.