



Corrosion Protection for Precast Structural Concrete and New Construction



*Structural Concrete Bypass Chamber – 20' diameter x 60' Depth over a 108" Sanitary Sewer Influent .
Danby PL3E PVC liner installed during construction of chamber*

What Danby IS:

Danby PVC Lining is made of 100% Poly (Vinyl Chloride) (PVC) which is impervious to H₂S corrosion therefore protecting the concrete. Hydrogen sulfide (H₂S) gas and the subsequent conversion to sulfuric acid will rapidly deteriorate concrete. Danby liner is manufactured with profile heights of .57 inch or 1 inch. One side of the liner has continuous ribs, .57" min., that are embedded in the concrete creating a mechanical anchor to the concrete. The Danby PVC lining panels are locked together with a gasketed joiner strip that has a co-extruded elastomer gasket providing a water-tight joint. The internal side of the Danby liner is a smooth surface which characteristically increases the hydraulics when compared to concrete. As a rigid PVC, the Danby lining has excellent impact resistance properties.

With over 30 years of proven experience in the wastewater and storm water infrastructure industry, Danby PVC lining is ideal for use in precast concrete of pipelines and new concrete construction of manholes, manhole/junction chambers lids, and flow diversion structures.

PRECAST STRUCTURAL CONCRETE

Concrete Pipes:

Danby PVC liner panels are assembled and lowered over the interior precast pipe form. Once the interior form is expanded and locked, the Danby liner creates a tight fit around the interior form, no issues with wrinkles. Standard requirements are followed for adding wire/steel, then the outer form is locked in place. The pipe manufacturer's process for pouring the concrete remains the same, vibrating the concrete to ensure concrete is evenly distributed.

Once the forms are removed, the smooth PVC surface is easily cleaned with high pressure water and ready to be inspected.



60"x20' Danby PL3F PVC liner
Over PCCP pipe form



60"x20' PCCP pipe lined with Danby PL3F PVC liner



48" Precast Manhole Riser Section lined
with Danby PL3F PVC liner

What Danby is NOT:

- ◆ Not a coating
- ◆ Not a flexible/soft liner
- ◆ Not a glued on liner, requiring adhesive/mastic surface prep
- ◆ Not heat-welded

Because Danby PVC liner is a rigid liner, there will not be any wrinkles when the forms are removed. No welding of strips at joints, no pinholes.

NEW CONSTRUCTION

Manhole/Chamber Lids

Manhole and chamber lids can be manufactured to include Danby PVC liner on the side that is exposed to H₂S gases. Manhole and structure lids can be designed with Danby PVC lining for any load rating or any application where corrosion protection is needed.



10'x16' Precast Concrete Structure Lid using Danby PL3E PVC liner (2 lids sections)

Concrete Diversion Structures

Large diversion structures are constructed with the Danby PVC liner for protection from deterioration.



12' x 15' x 58' Depth Structural Concrete Diversion Junction Box lined with Danby PL3E PVC liner



8' x 8' Junction Box with 84" Pipe lined with Danby PL3E PVC liner

About Us:

Danby PVC lining has been successfully installed in Wastewater and Storm water applications throughout the North America, Asia, and Australia since 1989.

Danby is manufactured in accordance with ASTM F1735.

Danby PVC lining is proudly made in the USA.

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20' Dia. Structural Concrete Bypass Chamber lined using Danby PL3E PVC liner



8' x 8' Concrete Lid HS20 load rated manhole lid lined with Danby PL3E PVC liner



5x5 Manhole Lid lined with Danby PL3E PVC lining