

TRENCHLESS ENGINEERING & MANUFACTURING
INDUSTRIAL · COMMERCIAL · RESIDENTIAL
Pipes Down Under, LLC

Reference: Comprehensive Testing Santoprene™ TPR liner and Retainer or Encasement sleeves.

Below are the specifications pertaining to the effects of Sodium Hypochlorite (NaOCL) in a pool shock solution resulting in 20-40 PPM mixture of pool water retention in relation to the integrity of PDU liner consisting of EPDM TPR (Thermal Plastic Rubber) material.

We at Pipes Down Under, LLC have discussed and calculated the above stated effects with the Exxon chemists along with the Hayward Chemical Resistance Chart. The conclusion was a life expectancy of over 40 years during pool conditions containing a normal residual of 20 to 40 PPM of NaOCL contained in pool water. These calculations are based on the absorption of the solution into the TPR liner. Total saturation (degradation) is longer than the above stated 40 years in relation to the thickness of the present liner.

Page seven (7) of the Hayward Chemical Resistance Chart ascertains from a total percentage of less than 20% to a 100% solution of Sodium Hypochlorite has (B) only minor effect against EPDM (TPR).

PDU liner has been tested in both positive and negative environments. The maximum pressure of a 1" to 1.50" diameter liner (non-inserted during testing) exceeds 35 psi. The negative pressure (vacuum) was resistance to nominal pool pump initial primer suction. Please note that due to not having control during installation, we can only warranty for material defects within time of purchase.

Termination Kits:

Retainer or Encasement sleeves:

Termination kits consist of Retainer or Encasement sleeves that seal each inserted liner with both ends of the repaired pipe. These sleeves are made of Schedule 40 PVC material.

Epoxy (See attached sheet below):

There are two types of epoxy. One is for underwater applications while the other is a non-sag, high viscosity material that can be applied on wet substrates but not underwater.

These adhesives are made up of a two-part 1:1, underwater curing compound. During installation, the adhesives are sealed between the sleeve and the liner along with the liner and the I.D. of the existing pipe. This precludes epoxy erosion and exposure to the pool water environment.

Engineering

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Summary Sheet CPP Two-Part Epoxy Gel – Non sag, Grey in color 9-19-12

FEATURES

- 1:1 mix ratio
- Moisture tolerant (cures underwater)
- Surface tolerant
- Superior, ultra high adhesion
- High build, superior hanging
- No sag
- Chemical Resistant
- Self-priming
- High strength
- NSF Certified. For use in potable Drinking water environments

FILM THICKNESS

- Able to be applied as a single or multi-coat system. It can be feather edged from a low mil thickness to a high build barrier liner of 1.5 inches thick without sag (Peanut butter consistency).

MIXING & CURE TIME:

- 1 Part “A” to 1 Part “B” - Part A paste must be mixed with Part B paste until a smooth consistent grey paste is formed without streaks or lumps. Recommend mixing on a mixing board or cup. Epoxy is self-priming.
- Epoxy must be applied by trowel or spatula within 30 to 40 minutes after mixing (Gel time is 15 minutes). Complete cure is 3 hours. This time frame can be extended at lower temperatures and reduced at higher temperatures. A heat lamp can be used to speed up the curing time if necessary.

SURFACE PREP:

Substrates must be clean and sound. Remove all dust, contaminants, grease, curing compounds, rust, waxes, foreign particles and disintegrated materials from the surfaces.

APPLICATION:

- Apply to both bonding surfaces. Join material. If necessary, clamp until cured.