

November 24, 2010

Re: Testing of **Polylok's** septic tank seal **P/N 3003-CE**

To Whom It May Concern:

This report documents the results of the testing performed on the **Poly IV CE Closed End Boot pipe seal**, on November 19, 2010, at the Polymold Laboratory in Wallingford, CT. The testing was witnessed and verified by Stonel Associates, Inc.

The testing was performed, in strict accordance to **ASTM C 1644- 06**, *Standard Specification for Resilient Connectors Between Reinforced Concrete On- Site Wastewater Tanks and Pipes*

The **Poly IV CE pipe seal** was tested on two different 4 inch diameter pipes: one **SDR-35 PVC pipe** and one **Schedule 40 pipe**.

The **Poly IV CE pipe seal** was molded from EPDM rubber and meets or exceeds all the requirements and specifications detailed in Sections 4 and 7 of **ASTM C 1644-06**. For testing, it was cast, using 3,000 psi concrete, into a 3"x 9"x 9" specimen block that became part of a custom pressure vessel testing unit. The testing unit contained an instrument that accurately measures both hydrostatic infiltration and exfiltration pressures.

Each pipe was placed in the custom testing unit and inserted into the **Poly IV CE pipe seal**. The pipe seal was then securely clamped to the pipe. Each pipe, while in an alignment position 90⁰ from the testing unit, had the pipe seal tested using an infiltration and exfiltration pressure of 5 psi, taken at the centerline of the pipe's height, for a period of 5 minutes in each condition. Each pipe was then axially deflected at least seven degrees and again the pipe seal was subjected to an infiltration and exfiltration test pressure of 5 psi for a period of 5 minutes in each condition.

Each pipe was also placed in a shear load of 200 pounds, for both the straight and the axially deflected positions, in accordance with the requirements as detailed in **Section 7.3.3 of ASTM C 1644-06**. After application of the constant load the pipe seal was subjected to infiltration and exfiltration testing of 5 psi, for a period of 5 minutes for each condition.

I can attest that throughout all of the above testing, there was absolutely no leaking and no indication of any sign of moisture.

The **Poly IV CE pipe seal** was also tested for failure. It required 48 psi to rupture the pipe seal.

Should you have any questions regarding this testing, please do not hesitate to contact my office.

Sincerely,



George E. Nelson
President

November 24, 2010

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To Whom It May Concern:

This report documents the results of the testing performed on the **Poly IV CE Closed End Boot pipe seal**, on November 19, 2010, at the Polymold Laboratory in Wallingford, CT. The testing was witnessed and verified by Stonel Associates, Inc.

The testing was performed, in strict accordance to **ASTM C 923-08**, *Standard Specifications for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and Laterals*.

The **Poly IV CE pipe seal** was tested on two different 4 inch diameter pipes: one **SDR-35 PVC pipe** and one **Schedule 40 pipe**.

The **Poly IV CE pipe seal** was molded from EPDM rubber and meets or exceeds all the requirements and specifications detailed in Sections 4 and 7 of **ASTM C 923-08**. For testing, it was cast, using 3,000 psi concrete, into a 3"x 9"x 9" specimen block that became part of a custom pressure vessel testing unit. The testing unit contained an instrument that accurately measures hydrostatic pressure.

Each pipe was placed in the custom-testing unit and inserted into the **Poly IV CE pipe seal**. The pipe seal was then securely clamped to the pipe. To test the integrity of the pipe seal, each pipe, while in a straight position, was subjected to a hydrostatic pressure of 13 psi for a period of over 10 minutes. After the straight position test each pipe was then axially deflected at least seven degrees and subjected to a hydrostatic pressure of 10 psi for a period of over 10 minutes.

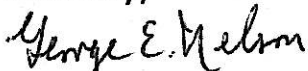
To further test the pipe seal, in accordance with the requirements as detailed in **Section 7.2.3 of ASTM C 923-08**, a shear load of 600 pounds was placed on both the straight pipe and the axially deflected pipe. After each application of the shear load the pipe seal was subjected to a hydrostatic pressure of 10 psi for a period of 10 minutes.

The **Poly IV CE pipe seal** was also tested for failure. It required 48 psi to rupture the pipe seal.

I can attest that throughout all of the above testing, there was absolutely no leaking and no indication of any sign of moisture.

Should you have any questions regarding this testing, please do not hesitate to contact my office.

Sincerely,



George E. Nelson
President