

November 26, 2010

Re: Testing of **Polylok's Boot Seal P/N 3005-CE**

To Whom It May Concern:

This report documents the results of the testing performed on the **Polylok Type VI 4"-6" Closed End Boot 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 Specifications for Resilient Connectors Between Reinforced Concrete On-Site Wastewater Tanks and pipes*.

The **Polylok Type VI CE Boot Seal** was tested with two different pipes, one **6-inch diameter Schedule 40 pipe** and one **4-inch diameter Schedule 40 pipe**.

The **Polylok Type VI CE Boot 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 4"x 16"x 16" 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.

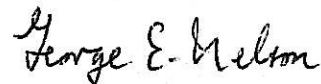
Each pipe was placed in the custom testing unit and inserted into the **Polylok Type IV Boot pipe seal**. The pipe seal was then securely clamped to the pipe. Each pipe, while in an alignment position 90° from the testing unit, had the Boot seal tested using an infiltration and exfiltration pressure 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 Boot seal was subjected to a hydrostatic pressure of 5 psi for a period of 5 minutes in each condition.

In addition, the 6-inch pipe was placed in a shear load of 300 pounds and the 4-inch pipe was 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 each application of the constant load the Boot 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.

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

Sincerely,



George E. Nelson  
President

November 26, 2010

Re: Testing of **Polylok's Boot Seal P/N 3005-CE**

To Whom It May Concern:

This report documents the results of the testing performed on the **Polylok Type VI 4"-6" Closed End Boot 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 **Polylok Type VI CE Boot seal** was tested using two different pipes one **6- inch diameter Schedule 40 pipe** and one **4-inch diameter Schedule 40 pipe**.

The **Polylok Type VI CE Boot 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 4"x 16"x 16" specimen block that became part of a custom pressure vessel testing unit. The testing unit contained an instrument that accurately measures hydrostatic pressure.

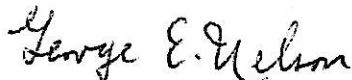
Each pipe was placed in the custom testing unit and inserted into the **Polylok Type IV CE Boot seal**. The pipe seal was then securely clamped to the pipe. To test the integrity of the boot seal, each pipe, while in a straight position, was subjected to a hydrostatic pressure of 13 psi for a period 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 Boot seal, in accordance with the requirements as detailed in of **Section 7.2.3 ASTM C 923-08**, a shear load of 900 pounds was placed on the 6-inch diameter pipe and 600 pounds on the 4-inch diameter pipe for both the straight and the axially deflected locations. After each application of the shear load the Boot seal was subjected to a hydrostatic pressure of 10 psi, for a period of 10 minutes.

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