



Most Widely Accepted and Trusted

# ICC-ES Report

## PMG-1190

ICC-ES | (800) 423-6587 | (562) 699-0543 | www.icc-es.org

Valid: 05/15 to 05/16

**DIVISION: 22 00 00—PLUMBING**

**SECTION: 22 13 16—SANITARY WASTE AND VENT PIPING**

**REPORT HOLDER:**

**SOURCE 1 ENVIRONMENTAL, LLC**

**422 W. RISING STREET  
DAVISON, MI 48423**

**EVALUATION SUBJECT:**

**PIPEPATCH CURED-IN-PLACE POINT REPAIR SYSTEM**



Look for the trusted marks of Conformity!

*“2014 Recipient of Prestigious Western States Seismic Policy Council (WSSPC) Award in Excellence”*



A Subsidiary of INTERNATIONAL CODE COUNCIL

*ICC-ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.*



**ICC-ES PMG Listing****PMG-1190**

Effective Date: May 2015

This listing is subject to re-examination in one year.

[www.icc-es-pmg.org](http://www.icc-es-pmg.org) | (800) 423-6587 | (562) 699-0543

A Subsidiary of the International Code Council®

CSI: DIVISION: 22 00 00—PLUMBING  
Section: 22 13 16—Sanitary Waste and Vent Piping

## Product certification system:

The ICC-ES product certification system includes testing samples taken from the market or supplier's stock, or a combination of both, to verify compliance with applicable codes and standards. The system also involves factory inspections, and assessment and surveillance of the supplier's quality system.

Products: PipePatch Cured-in-place Point Repair System

Listee: Source 1 Environmental, LLC  
422 W. Rising Street  
Davison, Michigan 48423  
[www.s1eonline.com](http://www.s1eonline.com)

## Compliance with the following codes:

2015, 2012 and 2009 *International Plumbing Code*® (IPC)  
2015, 2012 and 2009 *International Residential Code*® (IRC)  
2015, 2012 and 2009 *Uniform Plumbing Code*® (UPC)\*

\*Uniform Plumbing Code is a copyrighted publication of the International Association of Plumbing and Mechanical Officials

## Compliance with the following standards:

NSF/ANSI 14-2014, Plastic Piping System Components and Related Materials  
NSF SE 10990-2011, Special Engineered Specification for Rehabilitation by Point Repair of Existing Pipe

## Code Alternate:

NSF SE 10990 was approved by the ICC-ES PMG based on several factors which include the following: (1) referenced testing from ASTM F1216 is a consensus standard but not referenced in the code; (2) the code prohibits drainage line size reduction in the direction of flow. Source 1 Environmental installation does not constitute a reduction to a smaller nominal pipe size, further the resulting surface affords less friction loss which provides equivalent flow capacity despite the small reduction in diameter; (3) the use of this system restores the treated pipe capacity to minimum requirements in the code. Note this analysis only applies to systems evaluated by ICC-ES in accordance with NSF SE 10990.

## Identification:

The PipePatch Cured-in-place Kit must be marked with the manufacturers name or trademark, the NSF 14 designation, and the ICC-ES PMG listing mark.

**Installation:**

Installation must comply with the manufacturer's published installation instructions and the applicable codes.

PipePatch Cured-in-place (CIPP) Point Repair System must be applied by installers trained and certified by Source 1 Environmental, LLC.

**Inspection and Cleaning:** The pipe must be clean of all debris, roots and other obstructions that would block proper inversion of the CIPP. The cleaning must be done with a high-pressure jet unit or with mechanically powered cleaning equipment such as an electric rod machine with cutting attachments.

Inspection of the pipe must be done using a closed circuit television (CCTV) camera and performed by experienced personnel trained in locating breaks, obstacles and service connections. The interior of the pipe must be carefully inspected to determine the location of any conditions that may prevent proper installation of the CIPP liner into the pipe. Conditions such as protruding service taps, collapsed or crushed pipe, reductions in the cross-sectional area of more than 40 percent, or other obstructions must be corrected.

If inspection reveals a condition that cannot be removed by conventional sewer cleaning equipment, then a point repair excavation should be made to uncover and remove or repair the obstruction.

**Preparation, Installation and Curing of the Liner:** Each kit is size specific to the pipe to be repaired. All materials are pre-measured in kit form per manufacturer's specification. There shall be no deviation from using the exact contents in each kit per the PipePatch installation requirements.

Fiber shall be wetted and folded onto the packer per the manufacturer's requirements. The installer must follow the GENERAL SPECIFICATION FOR THE REHABILITATION OF SEWER LATERAL AND MAINLINES USING THE PIPEPATCH CURED-IN-PLACE PIPE LINING SYSTEM found in every kit. There is also a quick reference check list on each kit box.

Center the wetted mat on the protected packer. Tightly roll the wetted mat around the protected packer over lapping as you go. Secure the wetted mat to the protected packer using the 3(6) nylon cable ties. Push/pull the loaded packer to the area to be repaired. Using the air regulator, slowly inflate the packer to minimum inflation pressure, not to exceed 32 psi. The nylon ties will release at approximately 12-15 PSI allowing the wetted mat to be pressed against the inner surface of the pipe at the point of the repair.

The resin is ambiently cured. The installer must refer to the cure chart on the PipePatch kit as a reference for cure time of the pipe repair. Once cured, deflate the packer and remove it from the repaired pipe.

Cured piping is then inspected in accordance with the manufacturer's published installation instructions using equipment approved by the manufacturer. A final CCTV inspection is performed and recorded in accordance with Item 5 of the Conditions of Listing section.

**Models:** **PipePatch Cured-in-place Point Repair System:** The system consists of components tested and listed to NSF 14 and NSF SE 10990. The liner material is 100% fiberglass that is consisted of a knitted biaxial and chopped strand composite, and saturated with a proprietary silicate resin which, when mixed, is totally inert and non-toxic. After mixing, resin shall be yellow in color which when applied to white fiberglass mat will serve as visual aid to installer to ensure total and complete saturation.

**Conditions of Listing:**

1. Installation must be performed by PipePatch Factory Trained Installers, which are certified onsite by a Source 1 Representative.
2. The PipePatch CIPP System may be used to line pipe with a minimum diameter of 3 inches (72 mm) up to a maximum diameter of 24 inches (609 mm).
3. The minimum thickness of the liner must meet the design parameters of each individual application using the NSF SE 10990.
4. The pipe must be inspected and cleaned in accordance with the Inspection and Cleaning section of this listing and the manufacturer's published installation instructions.

5. Final video inspection in accordance with ASTM F1216 must be performed and witnessed by the code official or his designated representative. The final inspection must verify that the liner is continuous over the entire length of the area to be repaired and is free of dry spots, lifts, and delaminations.
6. PipePatch CIPP System materials are manufactured by Source 1 Environmental, LLC in Davison, Michigan, under a quality control program with annual inspection by ICC-ES.

