



3M™ Water Pipelines

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Taking Care of Asbestos-Cement Pipes

Protect them from interior deterioration

According to industry sources, such as the Water Research Foundation¹ and Exponent® Engineering and Scientific Consulting², thousands of miles of asbestos-cement (AC) drinking water pipes are aging. Over time, pipe interiors can be threatened by:

- **Calcium leaching** – calcium may be leached from the cement matrix when the pipe is exposed to conveyed water.³
- **Microbiological activity** – evidence suggests that microbiological activity may produce organic acids that can attack the cement matrix.⁴
- **Holes and gaps** – water loss can occur through holes, cracks and gaps, impacting the efficiency of the water system.⁵

This damage can be minimized by reducing the internal pipe surface area exposed to conveyed water and organic acids. A 2.75 mm non-structural coating of Scotchkote Liner 2400 on pipes between 4" (100 mm) and 24" (610 mm) can create a barrier between conveyed water and the AC pipe wall, reducing exposed surface area.

3M™ Scotchkote™ Pipe Renewal Liner 2400 in Asbestos Cement Pipes can:

- Inhibit calcium leaching in conveyed water
- Inhibit the impacts of microbiological activity on pipe walls
- Seal pre-existing holes up to 6 mm in diameter
- Fill cracks and gaps up to 5 mm wide
- Minimize community disruptions and costs with a quick curing, trenchless solution

Asbestos Requirements

There may be certain rules and regulations governing work related to asbestos containing materials at the local, state, and federal level. These regulations can be dependent on, but not limited to, criteria like geographic location, activity/task completed, asbestos containing material type, type of removal, etc. and usually are enacted anytime asbestos is disturbed (e.g. cutting, sanding, grinding, drilling into, etc.). It is the responsibility of the authorized applicator (or their subcontractor) to interpret and comply with local, state, and federal regulations for any activities considered to be covered under such regulations before any project is commenced. It is the responsibility of the authorized applicator (or their subcontractor) to obtain any required permits or complete any notifications to regulatory agencies. The authorized applicator will make sure it holds any required insurance needs related to asbestos projects.



Any authorized applicator or person employed by an authorized applicator that will be completing regulated asbestos activities (as defined under local, state and federal regulations) on an asbestos project shall have appropriate asbestos handling certificate or required licenses, or equivalent. The authorized applicator shall have proof that its workers and subcontractors have been trained and certified and have work plans to address requirements related to asbestos containment procedures, employee medical monitoring requirements, selection of appropriate personal protective equipment (PPE) for asbestos related work, air sampling requirements, or any other asbestos requirements. It is the responsibility of the authorized applicator to meet all requirements prior to completing work on asbestos projects.

Visit <http://www.3M.com/water/renew> to:

- Review case studies
- [View a list of our authorized applicators](#)
- Contact us with questions or comments
- Learn more about product and applicator training

¹“Long Term Performance of Asbestos Cement Pipe (Project #4093)”, Water Research Foundation, 2013.

²Exponent® Engineering and Scientific Consulting website, http://www.exponent.com/asbestos_cement_pipe_water_distribution.

³Ibid.

⁴Water Research Foundation.

⁵A Scotchkote Liner 2400 coating will not affect any deterioration due to external leaching or to any part of the interior of the AC pipe that remains exposed after lining, such as joints with gaps greater than 5 mm or areas that may be subject to shadowing. These areas may continue to see internal degradation due to leaching or microbiological activity. Scotchkote Liner 2400 is not intended to improve water quality by preventing or reducing asbestos fiber presence in potable water.

Upcoming Events

Join 3M Water Infrastructure at:

AWWA ACE 15

Booth 2015

Anaheim Convention Center | Anaheim, CA

June 7 – 10

And at a variety of local AWWA conferences:

Kansas AWWA/WEA Joint Conference	Topeka, KS	September 1-3
RMSAWWA/RMWEA Joint Annual Conference	Loveland, CO	September 13 - 16
Ohio AWWA Annual Conference	Cleveland, OH	September 15 - 18
99th Annual Minnesota AWWA	Duluth, MN	September 16 - 18

When rehabilitating drinking water pipes, an ideal solution would include excavating, cleaning, lining, disinfecting and restoring service in a single work day, without bypass piping and without boil notices.

If you want to discuss the challenges to achieving one day return to service, join us in exploring how local requirements and technologies would need to change to make that goal a reality at:

Breaking Barriers to Getting Your Water Pipes Back in Service in One Day

An AWWA ACE Roundtable Session

Tuesday, June 9th, 1:00-1:45 p.m., Room B, Booth #785



All statements, technical information and recommendations related to 3M products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using the 3M product, you must evaluate it and determine if it is suitable for your intended application. Because conditions of product use are outside of our control and vary widely, you assume all risks and liability associated with such use. Any product-related statements not contained in current 3M publications, or any contrary statements contained in your purchase order, shall have no force or effect unless expressly agreed to in writing by an authorized officer of 3M.

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