

Ask Jon Eakes

Plastic supply water pipe law suits : Poly-B, Kitec, PEX fittings...

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Copper is a trusted and proven piping for residential water systems. For years people have been interested in one form or another of more flexible plastic or mixed metal/plastic pipes that could be snaked through a house with fewer joints and easier installation. Unfortunately there have been many problems with most of these non-copper systems. Poly-B was the worst with plastic connectors bursting and even the pipe itself developing holes – this piping has proved to be a real disaster and yet CSA still lists it as an approved piping. A whole range of Pex-Aluminum-Pex pipes seemed to hold up much better although with time it was discovered that the pipes started to split open (I even have two pipes in my house that have not broken yet.) The most reliable was and still is simple PEX pipes, often used for in-floor heating, although even there, in installations made prior to 2007 it was discovered that the brass fittings corroded prematurely. All of these elements have had past or current successful Class Action suits against the manufacturers.

Poly-B is our biggest Canadian problem today, see lower down.

PEX-AL-PEX

and other Plastic Aluminum Plastic three layered pipes developed leak problems with age and a class action settlement was settled against the manufacturer which became effective on January 9, 2013. There were specific settlements for the US, Canada and separately Quebec residential installations. To be eligible for settlement benefits, you must file a Claim Form prior to the claim filing deadline. The claim filing deadline is January 9, 2020. You will not receive a payment if you do not submit a timely and complete Claim Form. Yes you should sign up with the site even if you have had no leaks. See details on the class action web site: www.KitecSettlement.com

You should continue to monitor your Kitec System. The first sign of failure for the fittings is a buildup of white residue on the outside of the fitting. The first sign of failure for the pipe is a blackening of the pipe and/or a bulging of the pipe. Typically problems occur first near the hot water tank. Most of these systems were Orange for hot water and Blue for cold water.

PEX brass fittings failures:

Straight forward PEX (cross-linked polyethylene) seems to have been and remains a good piping system. The failure problems were all related to brass fittings that had too high a zinc content. They experienced accelerated corrosion problems called 'dezincification' that led to the elbows and connectors blocking or leaking – most of the problems being in installations done between 1995 and 2007. Since then they changed the composition of the brass fittings and there are no more reported problems with PEX systems. The systems affected were sold as "Plumb-PEX" and only systems containing ASTM standard F1807 brass insert fittings and stainless steel clamps stamped with the letters "P-pex" or "MB pex" are included in this settlement.

The settlement for these fittings became effective on August 19, 2012. You can receive reimbursement for damaged property, the repair or replacement of the plumbing product, and reasonable costs associated with the material and labour needed to bring the home/building/structure back to its original finish and quality. The deadline for applying is complex, related to when there was a problem and when your warranty finished. See details on the class action web site:

www.CanadianPlumbPEXsettlement.ca

For the good side of the PEX piping story, follow this link.

POLY-B documenting the failures

All the Poly-B class action suits are closed today, no more money. But people are still discovering problems.

This is really an evolving story. I will leave it here in the order of its development to give you a bit of history, but if you have a problem with Poly-B, please read all the way through. I have asked people to send me specific cases of problems with Poly-B piping and I am printing them at the end of this article. Why am I sticking with these problems after the class action suit is closed? To give you a voice, and to pressure CSA to remove Poly-B from their approved piping list.

2010

The first questions I received about Poly-B piping failures came from the Calgary region in 2010. At that time, here is most of what I originally posted in this article:

Polybutylene piping has been the object of very large class action suits in the US and some initial steps were taken to try and initiate this kind of class action suit here in Canada. Keith has it in his new home and is worried.

Of course this is a controversial issue, as is anything that is raised to the media and to the class action lawyers. There is however a significant difference between the Polybutylene (Poly-B) experience in the US and that in Canada.

Primarily, few of the problematic acetyl in-line fittings were used in Canada, the majority of cases in the US were in the very hot roof sections of mobile homes in the southern desert states where the plastic piping literally cooked in the ceiling and chlorine levels in Canada are way below those in the southern states. Very few cases of problems have been reported in Canada, and most of those seem to be related to installation, not the piping itself. Probably as many installation problems have occurred with copper pipes in the same time period. So, as you can see I am not too excited about this issue in Canada and although not an ardent supporter of Poly-B piping, I wouldn't go about ripping it all out -- although a good inspection of any visible joints might be warranted.

Marc in Calgary strongly disagreed with me in a letter he wrote to me in March of 2011 where he referred back to his experience with it in 1997: "I strongly suggest anyone who has this piping in their home to remove it completely. The pipe is what fails, not the connectors as you suggested." (see his full letter below)

A month after adding Marc's comment to this entry Bob wrote me again from Calgary chimed in with another disaster story.

At that point I said that I hadn't had many serious complaints but I did comment that if you keep writing in I am going to have to bend to thinking that this piping is aging poorly, even here in Canada, or at least in Calgary.

September 2012 -

It appears that the primary difference between Poly-B in the US and in Canada is more of a question of how long it is taking to cause problems -- it does not appear to be aging well -- but I am still working on collecting documentation on that.

Official bodies, like CSA are receiving very few documented cases of problems across Canada -- no more than complaints about copper piping. If Poly-B is a growing problem in Canada we need an honest picture of just how important it is, and documentation to make that convincing, since failed piping is generally thrown away. I myself would like to know if it is isolated or generalized as a problem -- right now I don't know.

Since there is no organization to collect such information, I would like to request that anyone who has had a failure or caught a near failure to write me through the Comments section of this web site and put "Poly-B" in the Subject. Give me lots of solid details, such as: year of installation, year of problem, clear description of the problem, your province and city. Take photos of the problem and I will most likely write you back asking for the photos. If it is really revealing, keep samples of the brittle or worn piping.

Hopefully we may learn enough to prevent future floods.

Reading the information on the CSA web site (see below) may solve some of the mysteries, such as piping within 30cm vertically or 15cm horizontally from a strong heat source such as flue vents is not installed properly and is not expected to survive very long. But if there are a lot of proper installations that are failing, good documentation can allow me to get this onto the agenda of those who set and enforce standards.

In 2012 this is considered old news, all the class action suits have gone away and many old web links are now no longer active -- although for many of you it is not old news but a fresh disaster.

November 2012

You have been writing and CSA has backed off from my inquiries saying they only put out the standard; they are not responsible for the pipe. (Yes I have a bit of a problem with that too.) So I dug through the archives of this web-site and found every comment I ever received on Poly-B. They are all listed just below to encourage others to add to this information and I will keep posting them. Write to me as explained above. I am not making your e-mail addresses public but I have them on file so that if we can manage to get some code or regulating body to take a closer look at this, I may be in contact with some of you for more information or even sample pipe sections. If you know of other people with problems with Poly-B, please send them this web page -- I guess this might turn out to be some kind of a documented web petition.

A few interesting things out of all these letters below:

Hard water areas, like Calgary, seem to have mineral deposits on the inside of the pipes, especially in curves. Those deposits apparently cause water turbulence that wears out the pipe from the inside. You can actually see some photos of this type of action happening on copper pipe that has not been de-burred by looking at the 6th photo here. It is expensive but those minerals can be filtered as the water enters the house.

When city water pressure is over 80psi, weak pipes can blow apart. Again Calgary has a lot of pressure booster plants. Pressure reducing valves would be a good idea for any such area-- just as a precaution.

Because one of the greatest homeowner fears is that hidden pipes burst while no-one is home, it is possible to get shut-off valves that shut down the whole house water supply if water runs continuously for too long a period of time -- or valves that shut down the water when flood sensors pick up the presence of water on the basement floor. The best of all of these is the AquaTrip intelligent valve that keeps a constant watch on the water flow in the pipes to determine if there is a problem or not, no floor sensors. -- more details here.

One repeated item is that the Poly-B valves, like those under sinks or toilets, seem to simply blow apart -- perhaps from high water pressure. I would replace all of those immediately. These valves are always accessible.

your letters:

2023-09-26

My insurance renewal was recently cancelled because of the poly-b install. It was installed in '97 and has been flawless since. that right , zero problems for 26 years, and now Aviva decides to not renew my ins. so I'm getting it all replaced again. And on this subject why would the class action have a time limitation when the product is still out there ? Sheer and outrageous inanity by some bogus in the judicial system that's out of touch with real-life issues.

Don

2021-10-14

I live in Red Deer Alberta. My house was built in 1986. Most of the house's in this area have poly B. I have fortunately only experienced 2 pin prick leaks, and very fortunately someone was home and caught them quickly. My parents built this house, and I know Dad had the joints replaced with copper

fittings so there haven't been any issues from them. Both leaks occurred close to the water heater. My concern now is selling my house. My sister works for a large insurance company and tells me that most insurance companies will no longer insure homes with poly B. For new buyers. I have known all along that I have it, so am saving to have it removed. Would be nice if there was some sort of compensation. I mean, they know damn well there are hundreds of thousands of homes built with this crap, and they also knew that it could be years before a problem manifested. So to have put a time limit on claims is just wrong.

Debbie C

2021-05-22

Our house was built in 1985, we bought it 8 years ago. The surveyor never warned us about the poly B plumbing. Pin holes appear in the pipes for no apparent reason, hot pipes, cold pipes any diameter piping. We have in floor heating with Poly B piping too. We will probably have to go to electric. Costly!
Rod B

2018-05-11

I read your article and its numerous reports of the failures of polybutylene pipe, but am yet to be convinced it's a widespread problem in Canada. Out of the many hundreds of thousands of homes that this piping is installed in, I really wish there was an actual number/percentage published that accurately stated these numbers, and compared them percentage-wise to failures of other materials, such as copper, iron, pex etc. That way we could get a true picture of the real risks. I have a home that was effectively built (massive reno and addition with all new plumbing from the street main in) in 1992. We have had ZERO trouble with any of the Poly-B pipe, and I've removed sections and transitioned to PEX where I've installed new fixtures etc and put the removed samples through torturous abuse, bending, twisting etc. repeatedly, then re-pressurized water through the samples with hoses, caps and fittings to TRY and make them fail. So far, I'm only convinced that this stuff is excellent, even though it's been in service for 26 years. Nothing I've seen in my pipes' condition after 26 years of service would lead me to want to rip it out. I've read that if Poly-B was left in direct sun for extended periods, it photo-degraded, making it brittle. Perhaps the seemingly isolated failures (merely "tens" of homes out of hundreds of thousands with Poly-B pipe) are related to bad "luck of the draw" in that regard. I wonder how these failure rates compare to copper, iron, even PEX etc... I would really like to know what the true failure rates are relative to other materials. A certain percentage of ALL of them have failures. Dave R

Hello Dave, I agree with you about wanting to have numbers. The total lack of any accounting is why I opened this blog, one blog on one website, and we have had 45 personal stories scattered across the country. At least we are collecting real stories and not just rumors. Aside from the fact the a class action suit was won against the manufacturer, insurance companies, the ones who would have the numbers, refuse to release any statistics, but they are mostly refusing to give homeowner insurance on any house with Poly-B - a definite sign of wider spread problems. A number of plumbers in areas with high chlorine and high pressure, like Calgary and Hamilton, have developed specialized businesses dedicated to replacing Poly-B. So we don't have the numbers, but we do have a lot of smoke and it is spreading across the country as this piping is aging. Jon Eakes

2018-01-16

My 2 story house was built in 1987, using Polybutelene for water supply. I purchased the house in 1995, and to date, have had 8 water pipe breaks. 1 major under the house, 1 major in an upstairs wall that flooded my kitchen. several smaller ones in the walls. I sitting here tonight with the water cut off, due to another burst in the upstairs bathroom wall, coming through to my dining room. Plumber to come tomorrow, was just here on Saturday, fixing major in crawspace. We put a pressure regulator on several years ago to cut pressure down to protect pipes, but does no good. My wife complains all the time about no water pressure, and still having problems. When we fix one spot, it goes to the next weakest spot in the system. My fear is it will never end. Was thinking about a complete re plumb, but

that's a major undertaking. At wits end!!! Any recommendations? Perry G

2018-01-11

Oh, yea. Poly B. Two leaks/splits in three days (early Jan/2018). Previously - two splits. Going to replace everything with PEX. Thank goodness that I can do the repairs myself. Jim S

2014-12-19

1987 Calgary 2 story 4 bath. daughters home (23 water lines): So far, only cold water lines leaked (at floor line), 2 @ toilets & 1 @ sink; all on 2nd floor (past 6 months). Water softener = no hard water; pressure normal. Some evidence of kinked/pinched pipe (at floor line), as there is a small amount of deterioration (of pipe) on each side (where the leaks started). The wood opening swelled preventing a 'blow-out'. Suspect that cold water prevented the kinks to 'relax' vs sim. 'kinks' in hot lines. Issues: Bends are too tight & are not supported (esp. in floor cavity), holes not drilled in direction of bends, vibration from taps, poor horizontal support system, and almost impossible to install without 'stressing' &/or 'kinking'. No shut-offs except toilets.

Solution: If you have to use say 'Pex', split up manifold into zones & install shut-offs for each zone. Better to bite the bullet and put in copper (L, not M), esp. if you are going to 'remodel' sooner or later (27 years old ones here). Having experienced (first hand) what water damage (frozen copper 'M' pipes) can cause - years later = floor joists cracking, plaster issues, etc.; was no easy fix. It is obvious that the industry was fully aware from day one: "Easy to install & Cheaper" (for the builder - not owner). This is a little bit like the 1970's al. wiring 'Snow Job'; We ripped it all out, because the insurance co. surcharged us 70% with only 20% of it. Try 'collecting' from them for a 'known' issue: a.k.a Poly-B. Hope this helps, regards, Erich S.

2014-12-06

your comments on poly b failures... my house was built in 1986. I had a failure in 2012 in a straight stretch of piping and experienced another failure yesterday also in a straight stretch of piping. What happens is a pinhole develops for unknown reasons. The pipe is deteriorating. By the way, both are on cold water supply. Feel free to contact me for more info.

Larry

2014-11-03

I just recently learned about the problems arising with poly-B this weekend. My sister had called me in Sherwood Park about water on the floor and couldn't find the water leak in her furnace room. I went over to take a look and found that the poly-b line attached to the main manifold was leaking. This line was a spare line with about 10" of line and a cap. It was the cap that sprung a pin hole in the top. I installed a shark cap finding out that caps or any other parts are not available. I had told a fellow worker about the incident and he told me that he had a pin hole in a line in his kitchen earlier this year. He wasn't aware of any of the problems with poly-b either. I wonder if this is going to become a problem between home owner and insurance down the road and will insurance companies will cover the home owner. From recent posts does a person wait till there is more problems or start to look at replacing lines.

Daren.

2014-09-10

Yesterday i had a plumber install a new hot water heater. While he was here a pinhole leak erupted above him. He quickly shut off the water and replaced that section of pipe. This residence was built in 1995. (What luck, a leak opens while the plumber is standing there! - jon)

Sam

2014-09-03

I am in an acreage home built in 1988. I've lived here for 11 years, and had two pin hole leaks in the

grey pcb water supply in the last year alone. So it seems that time is really catching up with this product and its clear it should ALL be replaced. Both leaks were in the hot water line, one very close to the hot water tank so I suspect that the problem is more acute on the hot water lines than on the cold- no doubt the higher temps exacerbate the chemical damage from the chlorine and other chemicals. I got an estimate from a fellow who said he could replace all of the grey piping for just over \$1,000. Fortunately when the basement was developed 10 years ago, all white pipe was used, so there's not a great deal of that grey stuff left.

Ian

2014-08-22

Our home in the Edmonton area was built in 1988. We have had approx 6 pinhole leaks near the hot water tank. We have had 2 leaks in the past 2 weeks, the recent one involving the finished area of our basement. Insurance is covering the damaged drywall, flooring, shelving, etc. We are replacing all our plumbing lines, very costly!

Cathy

2014-08-18

On August 16, 2014 we had a leak in the hot water Poly-B piping in our house in Woodbine in Calgary. Several ceilings, some hardwood and a carpet have been ruined. The house was built in 1989. I intend to replace all the Poly-B piping ASAP.

John

2014-07-09

My sister bought a mobile home situated in Sackville Estates near Halifax, NS in 2005. The mobile was built 1985. In 2010 leaks began to appear near toilet supply, water heater supply, and kitchen tap supply. According to Halifax Water Commission website (<http://www.halifax.ca/hrwc/FrequentlyAskedQuestions.php>) chlorine added to water in Nova Scotia ranges from 0.5 mg/L in winter to 1.1 mg/L in summer. The water is described as "soft" (<17.1mg/L alkalinity). I'm not sure what the usual pressure is. Thanks for any advice on this issue which I read on your website.

Bill

2014-06-16

I haven't had a water line disaster, like many of your commenters. My Poly-B problem stems from trying to sell my house. In my house I have a manabloc manifold system whereby the water line is connected to the fixture directly from the manifold in a single, uninterrupted length of tubing. No fittings, no tees, no elbows, just a single run of tubing. My home is 22 years old, I live in a small town in Northern BC and, quite frankly have had no issues with the Poly-B. The issue I'm having is with selling my home. The prospective buyer was advised by his insurance company that they will not insure the home without a massive annual premium on the policy. My buyer has advised me that he won't continue with the purchase until the Poly-B has been changed out. Like many of your other commenters, my home is fully finished; I'm likely looking at a \$20,000.00 bill to complete the work. It seems really unfair that my home has become unsellable because of this issue.

Regards, Joe

2014-04-22

Good day to you sir. Yes I must agree with the failure of Poly-B piping and the acetyl-in-line-fittings, as since we've bought our house here in Red Deer AB in 2002, I've had to replace both hot and cold manifolds as they were made from the acetyl-in-line-fittings. Don't even know if these self-made manifolds should have even passed the city inspection's inspector, but that's what started my nightmares. We've had several leaks over the last almost 12 years now both fittings and pin holes appearing in the Poly-B pipe, so far most have been in the furnace room and not a lot of damage.

There is a drop ceiling that was put in an entrance area next to the furnace room where I've had to replace the tiles from water staining when the fittings from the homemade manifolds started leaking. Fixed the first couple of times then a friend and I replaced them with proper copper ones, but had to go from pex to the old Poly-B pipe. Then about 6 years ago I had to replace a section of drywall in the bar area because of another leak, then just this past Good Friday we had another fitting leak and this time again I will have to replace some drywall both in the ceiling and the wall possibly. If not I will have to re-texture both the ceiling any wall and then have to repaint both completely but it just don't make any sense as I know there will be more leaks to come. I am a disabled man from a serious busted up back and been on W.C.B since 1993 and when in 2002 I got a offer for a lump settlement on my pension I took it and bought what I thought was going to be my wife's dream home for her and I. Words can't explain how mad I am over this issue as I also know that our government knew this was an accident waiting to happen, as they knew from company memos on both the pipe and fittings, could most definitely leak over time, still because of pressure gave this inferior products a CSA approval and we the homeowner's in Canada will be left out in the cold to cover multi thousands of dollars to have to have this junk ripped out and replaced at also great inconvenience. I am greatly saddened at our government whom are there to protect us and at some back door dealings have now let us down yet again.

Barry

2013-07-27

We just got back from Friday night dinner with friends - close to midnight. We heard water running - sure enough vertical split in poly-b in pump/hot water heat room. This is about the 6th time - all others were pin prick holes. This one destroyed the opposite gyproc wall in the room. I am fairly handy - I turned main power off and crawled in to shut off mains. I then cut another foot out of the pipe and fixed with shark bites (done this too many times and so was prepared). I am running out of visible pipe now - the next will be in the walls or floor.

House is one of 90 in sub-division in Delta, BC. Mine was built in 1987. Total replacement without some coverage will be very expensive. Not doing it could be even more expensive. Happy to hear of any renewed class actions or suggestions for fixing this. Thanks!

2013-06-30

Add me to the list of unhappy campers with "Poly-B".

I live on a crescent of about 60 homes all built in the fall of 1987 to the spring of 1988. On my leg of the crescent there are 12 houses and I am NOW the 5th to have a major leak with "Poly-B" pipe. My fittings are all copper with a copper compression rings securing the joint. I had one very slow leak at a joint a few years back that fixed itself. Today when I went into my upstairs master bath I could hear water running and quickly determined it was in the wall. I found my laundry room on the main floor wet as well as my garage ceiling sagging. As luck would have it this is a long weekend and just days after the worst flooding in our cities history. I suspect this just could be a long process to get repaired. Over the years I have had to replace all the clamps holding the pipe in place in my basement as the plastic clamps have split and allowed the pipe to droop down from the rafters. I doubt it is a fitting failure as this is where the pipe drops to the ground floor. I will update this once I know for sure what has happened. I do know my water pressure is around 80psi and I do not have a regulator in my house.

Tim

2013-06-29

My house was built in 1987, we are the only owners. In the past 3 years we have had 3 leaks in the Poly B piping all have been pinhole leaks that have caused minimal damage so far. I have replaced almost all of the visible Hot Water 3/4 inch pipe And some of the 1/2 inch. My only problem now is what about the piping in the walls and I haven't touched the cold water lines. All 3 leaks were in the tubing and pin hole sized but not at the joints. The joints seem to be fine. 2 of the leaks were close to

the hot water tank but this last one was a ways away. Not happy with this crap. Thinking of replacing all the pipe to be sure. Should have done it prior to renovations. Darcy

2014-03-26

I will be adding my story to the growing list of Poly B disasters!
We are in Sundance, SE Calgary in a house built in 1988. We've been in less than a year when we had a flood in our basement this Jan thanks to a pinprick-size hole in a poly B pipe underneath our kitchen, approx. 2 inches from the copper fittings. Tiny hole but enough to cause major damage - good thing we were home! I have not had a chance to ask around my neighbours yet to see if they've had any problems. Pipe just appears to have weakened over time, as I have been reading. Real sinking feeling when you go online and find out how common this is, thanks to good websites such as yours! Insurance has been good but they only pay for damage and to replace drywall, carpet etc...meanwhile, we are paying to get all the exposed lines in the basement replaced while the ceiling is down and are going to look at getting the entire house replaced either now or later. It's too bad - I believe this era of house to be very well-built otherwise. And apparently, it may not even be very healthy to drink water from these pipes if they're deteriorating! Here's hoping that Pex pipe is all it claims to be and can stand the test of time! Then again, it's still just plastic :)

Chris

2013-03-14

Hello,

I am a Calgary architect.

We did a major Renovation / Addition with total new electrical and plumbing in 1995 to our Mount Royal home.

We have had 3 pipe leaks, two which are insurance claims.

The first occurred in Spring 2008, to the exterior irrigation system, when it was turned on for the summer season. The pipe burst and leaked water down the foundation wall and entered the basement at the joint of the concrete floor slab meeting the foundation wall.

The second pipe burst occurred in August 2012, at the indirect hot water tank in the garage, where the boiler system is located. Luckily, there was a floor drain to discharge the water. However approx \$5000 worth of damage to contents which is the same value of our insurance deductible, Thus no claim was made.

The most recent pipe burst is the most damaging, which occurred on March 3, 2013 immediately after the main water shut off valve.

This was located in my home office. The pipe burst was significant that it sprayed water all over the computer / copiers equipment and paperwork. Also there was approx 3" of standing water in the entire basement floor. We are still working with insurance company settling damage.

All the above failures occurred in the pipe, not at the fittings.

My biggest fear is... When and where will the next pipe burst occur?

I wish to replace all the Poly B piping.

I would like to participate in a class action to cover this cost.

Regards, Keith

2013-03-13

I live in a home constructed in 1989 in Kingston, Ontario. I moved in in 2007. In 2009, a pinhole leak appeared in a very accessible spot, nowhere near the water heater or any other heat source. I fixed it, and within a couple of months another leak appeared within a couple of feet of that. At that point I googled Poly B pipe and found that I shouldn't rely on it. I have since replaced all accessible Poly B with Pex, but dread the day I see signs of a leak! Mark

2013-03-12

Hello from Calgary! I can now myself among others in this city, who have had this piping fail. The

house was built in 1989 and we have lived here for 10 years. We came home tonight to large water stains on the finished basement ceiling. My hubby cut out the most wet portion of the drywall and it appears that the poly b has failed. Based on what I have read on your site, this is a very common problem here in Calgary and plumbing costs to rectify the situation can greatly vary in price. We have a call in to a plumber and perhaps the insurance company in the morning. Based on what I have read, this will be a very large and extensive job to replace the piping. But, I guess if the drywall is down best to replace then continually repair. If anyone has any words of wisdom or advice, I am all ears.
Lorraine

2013-02-18

I would like to add a bit to my previous submission on Poly B pipe. My previous insurer even wanted me to replace the poly b from the road to the house! CAN YOU IMAGINE? I would get rid of any poly b that is easily accessible. Particularly near the hot water tank. Does Your water shut off still work? Hopefully Your water pressure from the city isn't 120 lbs. like mine was. HD sells a guage that You screw onto a hose bib. Turn the water on and it gives You your pressure from the city. They are about 10 bucks. And turn down Your hot water temp to no more than 140F. Something else I found out about just recently is; If your insurance policy shows a mortgage lender on the policy, then You are paying a 100 to 250 dollars more per year for Your insurance. Even if You are mortgage free. So that means for the last 13 years I have been paying too much. I wonder if my previous insurer will give me a rebate for the excess I have been paying??? Yea Right ...Sure they will :) Ted

2013-02-18

The house is 24 yrs old and plumbed with poly b. A few months ago the 3/4 inch pipe coming off the hot water tank developed a pinhole. The water shot through the insulation and gyproc into the suite bathroom. It was a very fine stream of water. The water stream was so small You could barely see it. The suite was unoccupied at the time, so I'm guessing it was a week before it was noticed. The renovation company charged the insurance 13000.00 I repaired the section of poly b by cutting it at the hole and putting a sharkbite on it. That fixed the problem for a few months and then as I was walking by the hot water tank I thought I noticed a drop of water below where I put the sharkbite. Sure enough. I went to shut the water off where the pipes entered the house. The water wouldn't shut off due to the valve being faulty. Called a plumber and he replaced the valve and the pressure regulator above it. It wasn't working also as I had 120 pounds pressure and couldn't adjust it. I replaced about 80% of the pipe with Pex. The remainder of the poly b runs under the concrete and I am unable to complete that with a tenant living in the suite. Westland insurance will no longer insure me with any poly b in the house. I have not changed insurance companies in over 40 years, but I guess I'll have to now.....Ted

2013-02-01

I have a revenue property in Red Deer that was constructed in the early 80's and it had dark grey pipe throughout. In 2008, we had the first hair line leak in the furnace room on the hot water line. Had this fixed at a great cost as it was a holiday only to have the pipe leak again a couple months later and then one more time. Luckily each time the tenants were in the house as this happened and the damage was controlled. After the third time, I had all the grey pipe removed. The pipe was not failing on the joints but the actual pipe was developing hairline splits. I wish I would have replaced it all at the first sign of trouble as the cost of ripping it all out was not much more than the three repairs - horrible stuff!!!

2013-02-01

I work in the plumbing department of a larger hardware store in Surrey BC. Must say polyb comes up as a question from customers most every day. It has gotten to the point that when a customer comes in for plumbing advice one of the first questions we ask is "what color is the pipe"? Majority of customers try to use pex fittings for repairs and it takes

a bit of explaining to ensure that they go home with the right solutions. Problems with polyb seem to be increasing as the years go by, all the way from cracked fittings to corroded rings, although by far the greatest failure is either pin holes or outright cracks in the pipe both longitudinal (most common in the crack category) and across the pipe.

I don't have any photos to share as the ones provided by customers are on their smart phones or cameras. Many of the failures are at or very near gas fired hot water tanks. My comments to customers are that polyb is much more likely to fail than any other modern water supply and when on vacation to put their whole water system into the vacation mode. Honestly, based on what I have seen, if I had polyb in my house it would have been replaced a very long time ago. Regards, Adrian

2012-11-22

I have a 1988 house with Poly-B.

I had five leaks and one required an insurance claim.

All were caused by the plastic (acetal) connectors, and all the pipe seemed to be fine. I never had a leak from the pipe itself.

Just to be safe, I replaced all the available PB bith pex (the unavailable was in the concrete floor).

I am gambling that the in-floor pipe will be fine. In my case, I felt 0% confidence in the connectors and 100% confidence in the pipe. It is concerning however to read of other people's experieces, although copper pipes can leak and wear out too, and pex seems so easily cut that I cannot imagine but that there will be issues with it one day.

Interestingly, my house inspector in 2004 never even mentioned the poly-b (why do we bother with these guys?)

My hot water radiators upstairs had the plastic connectors as well....could that have been code? The public is taking a bath on this one (ha ha).....old fashioned copper is best,of course. But how we love our new junk.

2012-11-12

Jon We have lived in our home in SW Calgary for just over four years. In that time we have had four instances of the poly b piping in our home developing pin holes and causing damage. The home was built in 1988 and we are now considering replacing all of it. The worst leak was the first one. It didn't cause much damage as it was in the furnace room. However the water was spraying directly at the breaker panel. It could have been much worse than it was. Keith

2012-11-5

Hi Jon, I had to replace a piece of Poly-B pipe in my house yesterday and I'm leaving a comment here after reading your Poly-B article. Here are the details: I live in Ottawa, in a house that was built in 1989. I bought the house in 2010 (side note: home inspector never mentioned Poly-B) pipes. My basement is unfinished so fortunately I can see 90% of my piping (just not the stuff that heads to the upstairs bathroom). Last year I reno'd my powder room using PEX and the Home Depot guy told me I'd eventually have to replace all of my dark grey piping. I've been keeping my eye on the pipes since then. This weekend, one of my joints started leaking. Not a huge leak, just a steady drip from a T-connector. It was a hot water line, about 15 feet from the hot water tank and the first connection on the line. I cut out the section of pipe and replaced it using Poly-B to PEX connectors and a little bit of new PEX pipe. Lo and behold, the T-connector itself appears to be the problem. It has flaked away on the inside. I googled Poly-B issues and it sure sounds similar to the issues described in the USA. My pipes are all marked with CSA stamps so I will be in touch with them as per their website on the issue. I'll keep looking for class-action issues too. I'm not necessarily looking for money, especially since I didn't have a catastrophic failure, however, getting a good discount on a few hundred feet of PEX piping would certainly help. I've kept the piece that I cut out so please email me if you'd like to see the piece or if you'd like me to send pictures. Thanks. Mike

2012-10-31

I renovated an old house in 1990 and had the plumber install Poly-B throughout on a homerun type of installation so there are very few fittings. This month, October 2012, I had my first failure. It was on a cold supply line to a toilet on a straight run. It was only a pinhole leak but still managed to make a real mess behind the dry wall ceiling. I had it cut out and splice in a piece of Pex. When I looked at the damaged pipe I couldn't find the pin hole. Having read about all the controversy on the subject I have decided to replace all the supply lines in my house with Pex. Working with the plumber and doing most of the drywall opening and repair myself, I think it will cost about \$1,000. There are 31 supply points not counting the water heater and water softener. Ralph

2012-10-24

Oh yes we have a big problem as I write. We bought our home in Calgary 2.5 years ago and have had 5 leaks in the laundry room thus far. 2 Weeks ago was the last repair. Now to my new problem: last night at 12:30am a very loud hissing noise became present. I knew right away a pipe blew. We ran downstairs to find downpour of water coming from the ceiling. We turned off the water but we have been unable to see exactly where the leak is. But we knew just by the amount of water that it is bad. Where it is leaking is above ceiling and behind drywall so we need to remove the drywall to fix. Right now just trying to get someone in to deal with it. Im thinking that we are going to end up replacing all the pipe to avoid further problems. We also have a 3foot x 3foot drywall patch repair in the master bedroom right behind the tub tabs, leaving me to believe that there were pipe problems before we bought. We had an inspection done before we bought, but I will have to look over the notes to see if it was noted. Also part of the deal with us buying was \$5000.00 cash back to replace the hot water tank due to a small leak at the connecting pipe and rust damage; which is making more and more sense to why it was rusted. All past leaks where from the hot water pipe, but this nasty one is the cold water pipe. We do believe that it is a big crack in the pipe and not from the joints, even prior leaks were from both. I do believe we have the pipe from 2 weeks ago and we will be getting the latest one out in the very near future. I have all the proof you are looking for. I'm going to go snap happy taking photos so I can provide them as well, and if I'm right we also have pictures of the old hot water tank. Now I'm trying to figure out if the company who made this crap can be held liable for our non stop pipe problems. We have also been very lucky that someone was home at all prior leaks but next time we may not be so lucky.

James & Carla

2012-10-04

I just fixed the 5th leak in my house which is plagued with Poly B! The leaks are usually pinhole size and they usually occur on the hot water pipes very close to the hot water tank. This is a very well known problem around our area as several of the houses have experienced the same problem. These houses were built in 1986 and I too will be replacing all of the pipe that is visible. When you consult the fellows in the plumbing dept at Home Depot, they know exactly where to find the transition pieces required to go from Poly B to Pex, they too acknowledge this is a big problem. I have even gone so far as to purchase spare tubing and transition parts plus the necessary crimpers just to make sure I am ready should I be faced with another leak. Stephen

2012-09-27

Poly B piping installed in concrete floor home in 1980. No problems and had a new Kaypak boiler and

furnace installed approx: 2008. Plumbing company who did the install just inspected the system and states we should get a water filter system to remove particles from water within the pipes as a result of inner pipe break down. According to the plumbing company these particles harden and clog the pipes. Cost approx: \$1300.00 to install and we have to replace filters frequently for the first few months then about once a year. News to me ... have you ever heard of this type of filter system before with Poly B in floor piping systems. Bruce

2012-09-10

Our house in Calgary was built in 1988 (24 years old), and our basement developed in 1995. All water lines were done with the Poly B pipe. We have had two leaks. First in 2008, about 4 ft downstream of the hot water heater, where the pipe curved up over the furnace air ducts. It was a small lengthwise crack. Attributed that to it being in hot water service, close to the water heater, and stressed by the curve in the pipe. Second leak was last week, Sept 2012. This was on a straight piece of cold water line, 8" below a bathroom tap on the second floor; a very tiny lengthwise crack, in a spot where the pipe has been slightly crimped from being bent. This one has me worried. How many other inadvertent crimps may be behind walls from pulling the pipe through and around studs, joists, etc.? Both leaks, fortunately, were discovered fairly quickly, and easily accessible for repair. I fear the next one being behind a wall where water damage could be extensive by the time it is discovered. I have asked a plumber for a cost estimate to re-pipe the house. How would they do it, in a completely finished house? Even the basement ceiling is all gyp-rocked and stippled. Glen

2012-09-06

Dear Jon I live in Maple Ridge BC. My house insurance is coming due so like any aware consumer I decided to shop around a little. I got a quote from BCAA insurance. All was good until they asked what kind of piping I had. I told them Poly B. The agent then informed me that if the Poly B failed and caused damage, the deductible would be \$10,000.00. Yes, this is not a typo, \$10,000.00. I have already had a failure of the Poly B. The main 3/4 in line that runs under the basement floor ruptured. The basement floor was lifted and split. The walls are covered with drywall which needed replacing as well as the insulation flooring etc. The failure was caused by improper installation. After hearing that my deductible was going to be \$10,000.00 due to the high failure rate of Poly B, I'm forced to wonder how this will affect my resale value. My question is: what are my options? Piping replacement is going to be expensive because my basement is finished. Are there any grants available? Or do I save \$10,000.00 for a possible failure. Charles

2012-09-04

Hi John, I am a journeyman plumber in Calgary and I've come across this issue more times than I'd like to admit. I have a side by side attached home built in 1985. We rent out the other side and the poly-b caused major damage in the kitchen in the rental unit when the poly B released from a fitting under the sink. I then did an inspection of all the pipe and fittings that were exposed in the furnace room and found a fitting being held together by the pipe clip next to it. It could have been catastrophic, but as it was, it was somehow holding together and only dripping down into the drain by the furnace...disaster, only just, averted. The fact that it was right above the furnace was likely a contributing factor. However, this is the area that is most always the distribution zone for the domestic water lines. I have been plumbing since the poly-B first came out and it has only been in the last couple of years that I have started to hear and see (1st hand) the damage, and there is potential for more situations like mine. I am in the process of planning the complete change out of both systems to

the Pex system and I have people in homes of the same age, with the poly-B throughout their home, asking for a quote to do the same for them. I'm afraid that this could get worse before it gets better. If my experience is indicative of the poly-B system as a whole, this is not the last time you'll be hearing about it. Regards, Dale

2012-08-18

I've just had a failure of the poly-B pipe used as the intake water line from the city to my house. How can I get in on any law suit filed in Canada re: Poly B? Thanks Cecilia

2012-06-28

I built my house in 1982 when plastic piping was first introduced. My plumber convinced me to go with this piping much to the dismay of my father. Today I can say that I am happy that I went with the plastic piping because whenever I have done a renovation, I can do it myself and do not have to call a plumber. I do have copper in my shower walls and where my bath tubs are, but in the rest of the house it is the grey Poly B piping. 30 years later, I have not had a single problem with any of my Poly B. I have done some bathroom renovation so have replaced some of the Poly B with the new Pex, but there are no signs of any wearing on any of my grey piping. I have heard of these horror stories and have seen ads from companies urging people to change their Poly B, but from my experience, I cannot see any issues with this piping. Ivan

2012-05-30

Hi Jon, Calgary does not have a high concentration of Chlorine use compared to other Cities here in Canada. One thing that is very noticeable about our water is the high level of 'Hard water'. We get our water from Glaciers and snow melt originating from The Rocky Mountains. When the water is heated up in excess of 140 degrees F. the minerals start settling out inside the hot water tank. I have actually found white mineral residues inside "Failed" sections of Poly 'B' pipe, helping to better explain the reason for the wearing out of the pipe on bends. Where there is turbulence inside the pipe, there will be leaks. Copper piping on hot water recirculation lines are know for getting 'pitted' by wearing out of the pipe. Unlike Pex pipe, which was invented in Germany; they used Brass fittings and brass valves. The Poly 'B' fittings (elbows) that have failed here have been made of copper and plastic. The plastic valves and fittings have actually blown apart, similar to the fittings that are installed on toilets and faucets. Another contributing factor has been the static water pressure from the City. The higher the water pressure above 80 PSI, the greater risk of Poly 'B' pipes blowing apart. This can occur in areas of the City where a booster pumping station has been installed. I have recorded the water pressure being as high as 107 PSI. A pressure reducing valve is strongly recommended and installing a pressure gauge to help monitor the pressure entering your home. As has been the case in homes that have had experience with 'multiple failures' of Poly 'B' piping, having it replaced with Pex piping is strongly recommended by the Plumbing Industry here in Calgary. Ron -- A plumber.

2012-04-19

Hi Jon, i just read your comments on the poly B water pipe and I do not agree with your conclusion. Yes it is 2012 but many homes does have these pipes in the walls. So it is current. I have just repaired another leak last Friday March 16th. This time it developed a leak in the furnace room so luckily I dint have to replace any drywall - but I know the time will come. 5 years ago I had a leak in the living room

and I had to replace the drywall. And about 7 years ago I replaced the leak in my bathroom faucet pipe. The furnace room leak was due to a crack in the middle of the pipe, not on the connector. This crack was 2 inches long. The living room leak was also in the middle of the pipe. This time it was a very small pin sized hole. It must have been leaking for awhile as it pooled the water and dropped the ceiling down. The actual water that comes out of the pipe was the size of a spider web. I thought it was a spider web until I ran my hand on it and felt cold. The bathroom leak was also not at the joints, it was right in the middle of the pipe and the crack was about 3 mm in width. In short Jon, this poly B is an issue and with time it will even be a bigger issue as they are now breaking down. BTW - when I inspected the pipe I just replaced last week, I discovered that another length of pipe has hair line cracks on it. This has not leaked yet and the cracks are very visible and they run parallel to the length of the pipe. So I do believe these cracks have nothing to do with chlorine as it starts on the outside of the pipe. Yours, John

2012-01-06

We purchased a Calgary house in 1991 (originally built in 1912) that had some copper, but mostly poly-b piping due to a 1980s reno. We did a reno in 1992, which added to the stock of poly-b, but all of the existing plastic T's and elbows were replaced with copper at the insistence of the plumbing inspector. In 2009 and 2010, we had 5 separate leaks, one of them requiring an extensive insurance claim and considerable inconvenience. None of the leaks were on joints. Three were on hot water pipes and two were on cold. The last cold pipe leak was in the middle of the pipe at least 4 feet from any joints or curves. It simply broke through the wall of the pipe. In March 2011, we had all of the poly-b replaced with pex at a cost of \$3000. It took 2 plumbers two 12 hour days to do the replacement. Repair to the drywall was another \$1400, but it was well worth it. Our other two quotes for just the pipe replacement were \$6000 and \$15,000, so there seem to be some gougers out there. I am surprised that insurance companies don't refuse to insure houses with poly-b based on my discussions with the insurance adjuster, who said the number of claims in this area just keeps escalating. Robert

2012-01-05

I noticed you mentioned that there have not been so many problems with this piping in Canada. I just heard from my plumber that many subdivisions here in Peterborough Ontario have this piping in their homes, and there are major problems. We have already spent so much on "problems" in this house, we cant afford to rip this stuff out. This leak occurred in the basement, which if it had happened upstairs could have been much more damaging. Apparently the gov't had something to do with all this, and they allowed a small grant or something several years ago to get this fixed. Why was this not made public and a mandatory part of the house inspection when purchasing? Catherine

2011-12-07

I moved into a townhouse complex in Vancouver 3.5 years ago that is today about 12 years old. There have been a few major problems here due to poor workmanship, ignorance and greed, but I won't go into that. What I will comment on though is that I recently organized a bulk purchase of water tanks for many owners in the complex saving them more than 50% on what they would have paid individually. During the installation process, the plumber commented on the grey Poly B piping and mentioned how there was a problem with it in the past. He said that it doesn't meet code today and he felt that it perhaps didn't meet code when our complex was finished in 2000. Our complex is only 31 units, and

in the first phase (15 units) they used this grey Poly B piping. The 2nd phase has the white "pex" pipe. During the 3.5 years that I have been here, I have seen 4 units experience leaks and flooding. All 4 were units in phase 1 and all 4 had the grey poly B pipe fail. I believe all were on hot water lines which I am now told could be the reason. Apparently Poly B becomes brittle when exposed to excessive heat. I'm only submitting this info because your article stated that there doesn't seem to be much trouble with Poly B in Canada where I believe there are many more cases of where people just get the problem fixed and don't realize that Poly B is to blame. Just my 2 cents. Nigel

2011-11-06

I also have had multiple failures in my 25 year old home. Are there any class action law suits here in Alberta or Canada? Calgary. Alan

2011-11-06

Yes, the poly-b piping is a big problem. I had already 2 leaks within 3 years. My question is, do you know good experience contractor in Calgary for replacement of this piping ? Thank you, Jerry

2011-06-19

Hi - in my 20 yr old house I have the gray water lines and fittings. One night I had a catastrophic failure of a toilet supply valve. The rotating part just popped out. Also my neighbour a few doors down had a similar experience in a top floor bathroom when they were not home - what a mess. I believe it is much more serious than you are stating in your blog. Bob

2011-04-29

I just read your tiny article regarding Poly B piping here in Canada, and strongly suggest you revamp your recommendation of NOT RIPPING IT OUT. I purchased a home in Calgary in 1997 and had multiple leaks with this piping. Where it tends to leak is mostly on the hot water lines where the installer did not use elbows, but instead simply did a sweeping curve with the pipe. It wears out from the inside of the pipe, on the outside of the curve. After my third damaging leak I ripped out every stitch of grey pipe. I also bought a second revenue house a few doors from my home. I immediately ripped out all the grey pipe in that home too and saw several spots where a problem would definitely have occurred. I strongly suggest anyone who has this piping in their home to remove it completely. The pipe is what fails, not the connectors as you suggested. Marc - Calgary

2010-05-13

We had poly "B" pipe installed in our home in 1988. We have never had a problem, but have heard of many problems. We are going to update the boiler and we were told to replace all the poly B pipe which would be very expensive. We have poly B under the cement in the garage and basement, also under the 3/4" plywood floor on the main floor. What should we do? I heard of compensation in the US but was told that there was no compensation in Canada. John

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