

Poly-B worry?

Henry Liu CPBC 53115 Canada Association of Home and Property Inspectors of BC

The grey water pipe which official name is poly-B or polybutylene was widely applied on the building from the middle of 80s to the late of 90s. Then after it started getting out of the market due to the leaking problem but was still commonly seen in the detached home & town home at that age.

I often found the posts on internet and the talking from clients or agents but most times were not correct. Hereby, I am going to touch a little bit on Poly-B to clarify the misleading & hereafter evaluate the property fairly.

It was the same as other plastic pipes ex. Polyethylene, Pex and PVC, Poly-B was widely used on the city water



supply & building interior pipes. Because its good flexibility is only next to Polyethylene, it can be used for hot water line as well. Also for its flexibility I personally believed it was more suitable on our local buildings which are mostly light wood structure. First this foundation was not built as much as concrete requirement. In addition, we are on the earth of active slab, which caused movement all the time. Although

we cannot see it, the building existing tiny settlement and movement always happened. Therefore the flexibility of this pipe can offset the stress from the building movement, which avoided damage & leaking due to this stress & the expansion & contraction from the cold & hot water alteration. But why it was out of the market and people were concerned about it in such a way. In fact, most leakage was found from tubing connection which was adopted plastic & aluminum. It should be said the improper installation undermined the leakage. These were commonly found in US rather than our local area. The poly-B pipe found during my inspection was 99% with copper tubing which reduced the leakage risk. However, because of the powerful US market, manufacturers & suppliers as well as the emergence of PEX pipe, Poly-B was out notoriously.



Poly-B was also applied as heating pipe buried under flooring or connected to baseboards. People always mixed up this boiler heating pipe with hot water pipe for sinks & showers. Actually, Poly-B which was used for room heating should be paid attention to. The previous poly-B pipe was not air tight and did not have an air barrier for oxygen. Therefore the oxygen could immerse into the heating circulation, which could cause heat exchange rusty & leaking leading the boiler failure prematurely. In order to keep the boiler life expectancy, the solutions could be through adding chemicals to reduce corrosion or setting up an auxiliary heat exchanger (figure) which can be scarified to avoid the cost of

changing a new boiler. Therefore, once you found a property with Poly-B pipe, you do not need to be panic until the detail can be inspected.