



**C E R T A**  
**I N S P E C T I O N S**

# CERTA INSPECTIONS

The Ultimate Home  
Buyer's Guide

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► Now that you've found your home!

AT CERTA PROPERTY INSPECTIONS, WE HAVE CREATED THIS SIMPLE GUIDE WHEN SHOPPING FOR YOUR HOME.

ILLUMINATING COSTLY AND PROBLEMATIC BUILDING MATERIALS FOUND THROUGH VARIOUS ERAS OF HOMES.



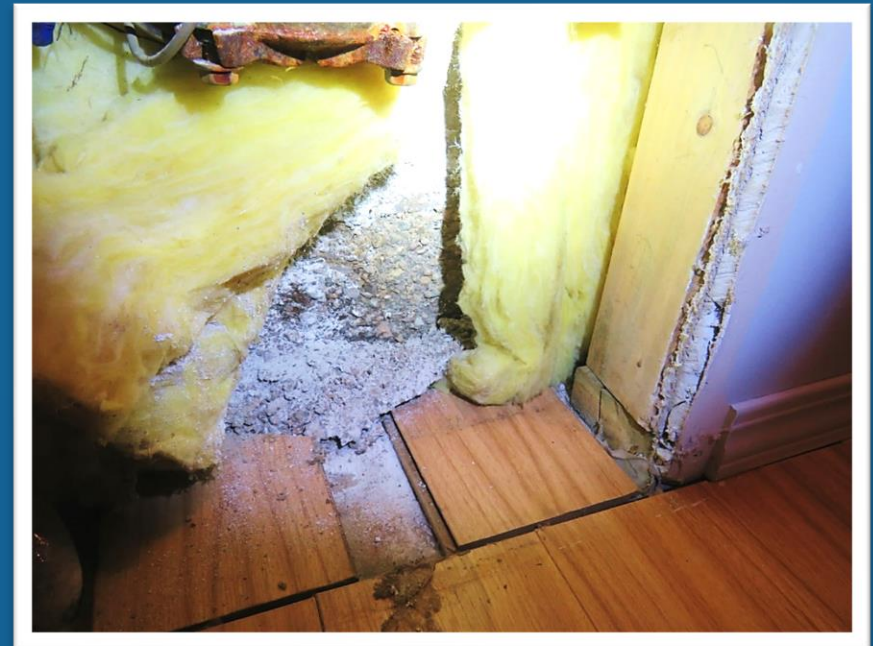
# PRE 1960 FOUNDATIONS

MANY HOMES BUILT BEFORE THE 60S OFTEN SUFFER FROM WHAT IS KNOWN AS "SULPHIDE DECAY". THIS RESULTS IN THE CONTINUOUS DETERIORATION OF THE CONCRETE FOUNDATION WHICH CAN INCREASE THE LIKELIHOOD OF WATER INTRUSION AND STRUCTURAL DEGRADATION.

DUE TO THE PRIMITIVE METHODS OF OLDER CONSTRUCTION PRACTICES; LARGE AGGREGATES (STONE), UNFILTERED WATER, LACK OF SULPHATE RETARDERS, AND OTHER POOR PRACTICES OFTEN LEAD TO SUBSTANDARD FOUNDATIONS.

WHEN YOU ARE LOOKING AT PURCHASING OLDER HOMES, HAVE A LOOK AT THE EXTERIOR FOUNDATION (IF EXPOSED) AND AT THE BASEBOARDS AROUND THE FOUNDATION WALL FOR SIGNS OF WATER DAMAGE.

ANOTHER NOTE IS THAT: INCORRECT CONCRETE MIXES STILL OCCUR AND EVEN NEWER HOMES MAY EXPERIENCE THIS PROBLEM.



# PWF (PERMANENT WOOD FOUNDATIONS)

FIRST EXPERIMENTED BY THE CANADIAN MILITARY IN NORTHERN CANADA (1950S), HOMES BUILT WITH A PWF CAN PROVIDE GREAT COMFORT WHILE PROVIDING THE STRUCTURAL SUPPORT NEEDED TO BEAR THE WEIGHT OF THE HOME.

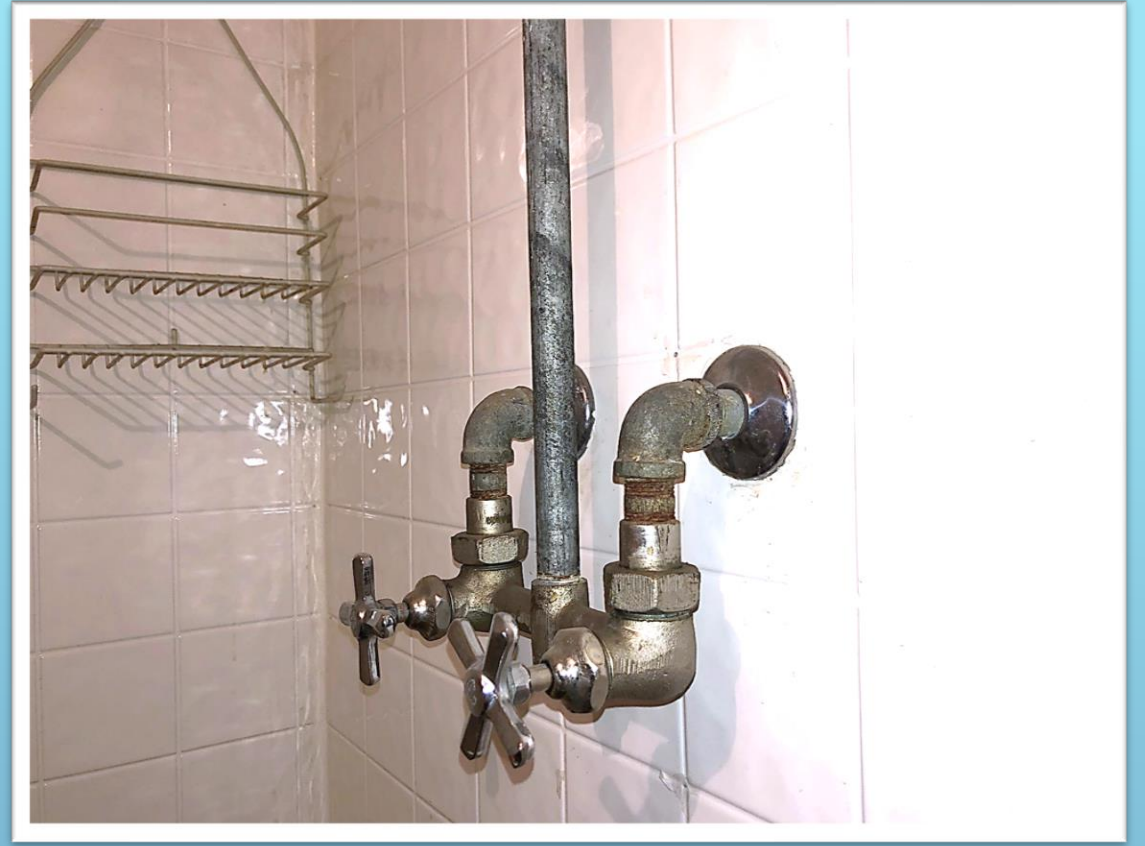
WHEN YOU ARE LOOKING AT PURCHASING A HOME, LOOK AT THE EXTERIOR FOUNDATION (IF EXPOSED) AND IN THE BASEMENT BELOW STAIRS OR AROUND THE ELECTRICAL PANEL IF YOU CAN SEE THE DARK GREEN COLORED SHEATHING.

WHILE MOST MORTGAGE LENDERS WILL STILL PROVIDE A MORTGAGE FOR PWF HOMES, THEY OFTEN REQUIRE AN ENGINEER'S CERTIFICATE WHICH THE SELLER OR MUNICIPALITY MAY HAVE.

THERE ARE SEVERAL WAYS TO DETERMINE IF A HOME IS BUILT WITH A PWF INCLUDING "THUMPING" THE FOUNDATION WITH YOUR HAND. A HALLOW FEELING OR SOUND OFTEN INDICATES A PWF WHILE CONCRETE WILL BE DENSER.

MANY SELLERS ARE OFTEN UNAWARE THEIR HOME IS BUILT WITH A PWF AND MAY BE SURPRISED OF THIS DISCOVERY.





## GALVANIZED WATER SUPPLY PIPING

OFTEN FOUND IN HOMES BUILT BEFORE THE 70S, GALVANIZED PIPING WAS THE PRECURSOR TO COPPER. MANY INSURANCE PROVIDERS REQUEST THAT GALVANIZED PIPING BE REMOVED AS IT HAS A HIGHER CHANCE OF LEAKING DUE TO CORRODING FROM THE INSIDE OUT. BE CAREFUL TO NOT CONFUSE GALVANIZED WATER PIPING WITH BLACK STEEL GAS PIPING! IF IN DOUBT, FOLLOW THE PIPE TO WHERE IT STARTS. YOUR REALTOR MAY BE ABLE TO HELP YOU WITH THIS.

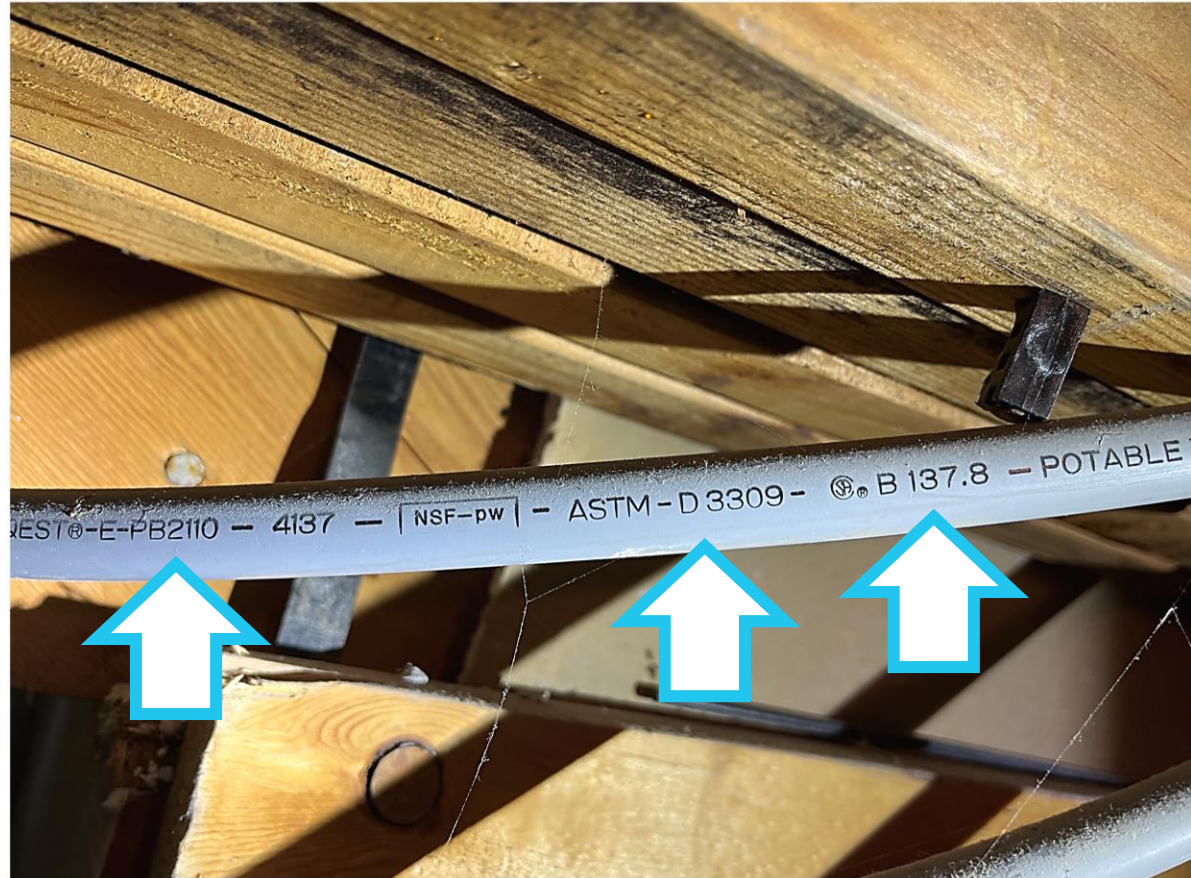


## LEAD PIPING

IT GOES WITHOUT SAYING THAT LEAD PIPING IS NOT SOMETHING WE WANT TO HAVE IN OUR HOME WATER SUPPLY LINES. TYPICALLY LEAD PIPING WAS USED UNTIL THE 60S EITHER THROUGHOUT THE WATER SUPPLY LINES OR THE MAIN WATER SERVICE FROM THE MUNICIPALITY TO THE HOME.

THE EASIEST WAY TO DETERMINE IF THE WATER PIPE IS MADE OF LEAD IS BY GENTLY SCRATCHING IT WITH KEYS OR A FLAT HEAD SCREWDRIVER. IF IT TURNS FROM A DULL TO A SHINY GREY (AND IS A SOFT METAL), CHANCES ARE IT IS MADE OF LEAD.

## POLYBUTYLENE PIPING (POLY-B)



POLY-B WAS THE SUCCESSOR TO COPPER WATER PIPING WHICH LED TO GREAT DESIGNS SUCH AS HOME-RUN MANIFOLDS (THIS RESULTED IN CONTINUOUS PRESSURE FOR YOUR SHOWER) AMONGST OTHER ITEMS. UNFORTUNATELY, THE MATERIAL WAS PROBLEMATIC FOR A VARIETY OF REASONS WHICH LED TO FAILURES IN SOME INSTALLATIONS. DEPENDING ON THE AREA, TYPICALLY POLY-B WAS FOUND DURING THE MID 1980S – TO MID 1990S.

WHILE SOME INSURANCE PROVIDERS MAY NOT INSURE THE HOME, OTHERS MAY INCREASE THE PREMIUM OR REQUIRE THE INSTALLATION OF WATER LEAKAGE DEVICES. LOOK OUT FOR SOME OF THE FOLLOWING IDENTIFIERS ON THE PIPE SUCH AS PB2110, ASTM D3309, OR CSA-B 137.8. WHILE TYPICALLY POLY-B IS GREY IN COLOR, IT MAY BE BLUE AND EVEN BLACK!



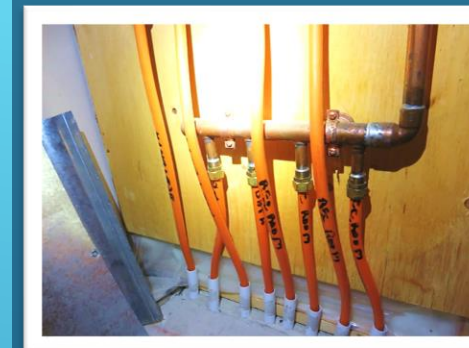
# KITEC

WHILE LESS KNOWN, KITEC (THE MOST POPULAR BRAND NAME) CAN ALSO BE A PROBLEMATIC WATER PIPING MATERIAL IN HOMES.

TYPICALLY FOUND IN HOMES BUILT BETWEEN THE MID-1990S AND 2000S, KITEC (PEX-AL-PEX OR PE-AL-PE) IS KNOWN TO FAIL WHEN USED FOR HYDRONIC HEATING. THIS OFTEN INCLUDES BOILER LINES AND IN-FLOOR HEATING. A CLASS ACTION LAWSUIT WAS SETTLED IN 2020 FOR \$125,000,000 AND NO ADDITIONAL CLAIMS CAN BE MADE.

WHILE MANY INSURANCE PROVIDERS DO NOT PROHIBIT KITEC IN HOMES, SOME PLUMBING CONTRACTORS MAY NOT WORK ON OR WARRANTY REPAIRS DUE TO ITS FAILURE RATE.

TYPICALLY, KITEC IS ORANGE IN COLOR BUT MAY ALSO BE BLUE. THE TELLTALE SIGNS ARE THE ASTM 1281 OR 1282 MARKING ON THE PIPE.



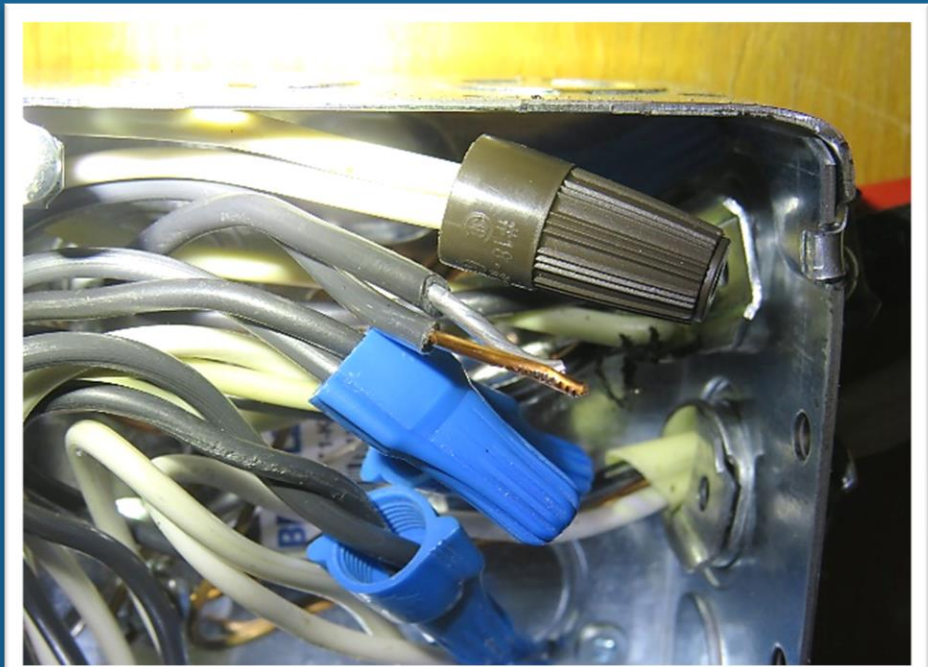
# ALUMINUM WIRING

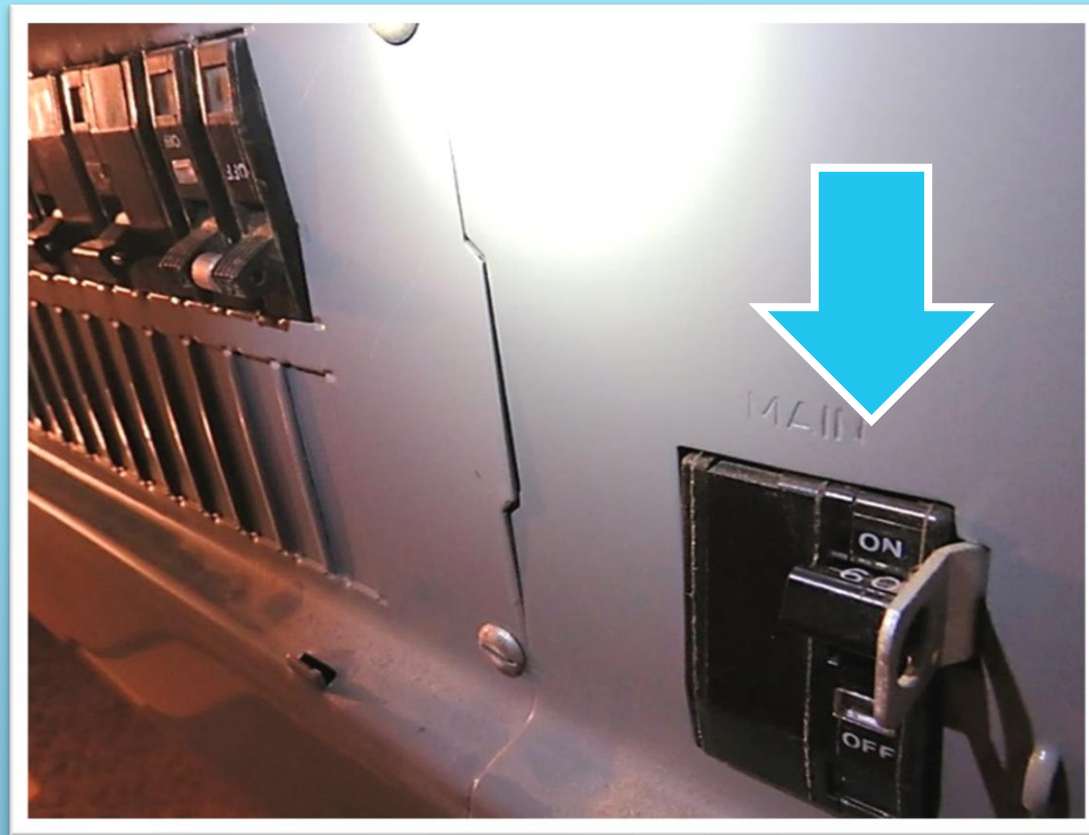
AS A RESULT OF THE VIETNAM WAR, A COPPER SHORTAGE BECAME AN ISSUE FOR BUILDERS BETWEEN THE LATE 1960S TO MID-1970S. THE INCREASE IN COPPER MATERIAL COSTS LED TO THE HOME BUILDING INDUSTRY SWITCHING TO ALUMINUM ELECTRICAL WIRING.

WHILE ALUMINUM WIRING IS SAFE, POOR IN INCOMPATIBLE TERMINATION CONNECTIONS AT ENDPOINTS SUCH AS WALL SWITCHES, LIGHTS, AND PLUGS (RECEPTACLES) BEGAN FAILING RESULTING IN HOME FIRES. NOT EVERY HOME BUILT IN THIS ERA WILL HAVE ALUMINUM WIRING (AA-1350 WIRING SPECIFICALLY)

AS A PROSPECTIVE HOME BUYER, IT MAY BE DIFFICULT TO DETERMINE WHAT THE CONDUCTOR (WIRE) MATERIAL IS WITHOUT OPENING THE ELECTRICAL PANEL. WE DON'T RECOMMEND YOU DO THIS.

IF ALUMINUM WIRING IS FOUND DURING THE HOME INSPECTION, THERE ARE SOLUTIONS SUCH AS PIGTAILING WHICH CAN BE PERFORMED BY A QUALIFIED ELECTRICIAN.





## MARGINAL ELECTRICAL SERVICE

SOME HOMES, TYPICALLY PRE-1960S, MAY HAVE LESS ELECTRICAL SERVICE THAN HOMES BUILT TODAY. BEFORE THE 60S, THERE WAS LESS ELECTRICAL DEMAND AND MANY HOMES WERE BUILT WITH LESS THAN 100-AMP SERVICE. WHILE THIS IS NOT NECESSARILY AGAINST THE ELECTRICAL CODE (IN SOME CIRCUMSTANCES), MANY INSURANCE PROVIDERS REQUIRE THAT HOMEOWNERS UPGRADE THE SERVICE TO TODAY'S STANDARD OF 100 AMPS.

TWO POSSIBLE INDICATIONS OF MARGINAL SERVICE ARE THE MAIN DISCONNECT BREAKER RATING OR A ROUND ELECTRICAL METER BASE.



## KNOB AND TUBE

THE FIRST ELECTRICAL WIRING METHODS IN HOMES CONSISTED OF KNOBS AND TUBES. THE TUBES ALLOWED PASSAGE OF THE CONDUCTORS (WIRE) THROUGH BUILDING MATERIALS SUCH AS JOISTS WHILE THE KNOBS PROVIDED SUPPORT.

WHILE IT IS STILL ACCEPTABLE BY TODAY'S ELECTRICAL CODE (KNOWN AS OPEN-WIRING), MOST INSURANCE PROVIDERS WILL REQUEST THE MATERIAL BE REMOVED.

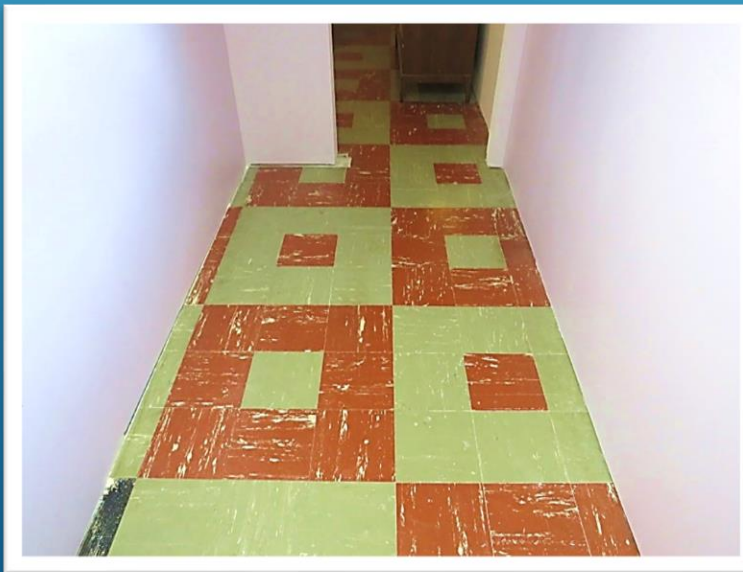
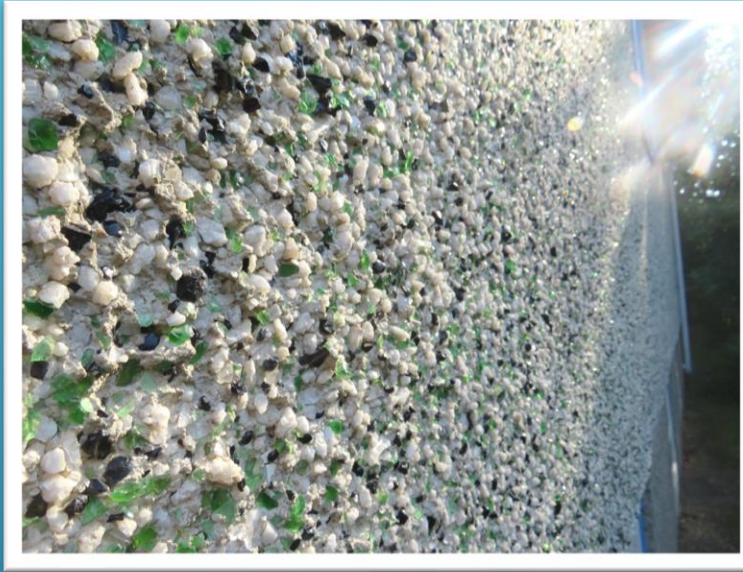
HOWEVER, DON'T BE FOOLED IF YOU SEE KNOB IN TUBE IN HOMES BUILT IN PRE 1950S AS IT MAY HAVE ALREADY BEEN DE-ENERGIZED BUT SIMPLY NOT REMOVED.

# ASBESTOS-CONTAINING MATERIALS

ORIGINALLY REGARDED AS A MIRACLE PRODUCT, ASBESTOS WAS USED UNTIL THE 1990S IN A VARIETY OF BUILDING MATERIALS SUCH AS DRYWALL MUD COMPOUND, HVAC DUCT AND BOILER WRAPS, DASH STUCCO, VERMICULITE INSULATION, FLOORING, ADHESIVES, AND OTHERS.

WHILE DETERMINING WHETHER A MATERIAL HAS ASBESTOS CAN ONLY BE DETERMINED BY A QUALIFIED LAB, THERE ARE SEVERAL BUILDING MATERIALS THAT HAVE A HIGH PROBABILITY OF CONTAINING ASBESTOS.

DESPITE ASBESTOS STILL BEING ALLOWED IN CANADA FOR APPLICATIONS SUCH AS ROAD CONSTRUCTION AND MILITARY USE; AS A KNOWN CARCINOGEN; IT IS NOT USED OUTSIDE OF THOSE APPLICATIONS ANY LONGER.

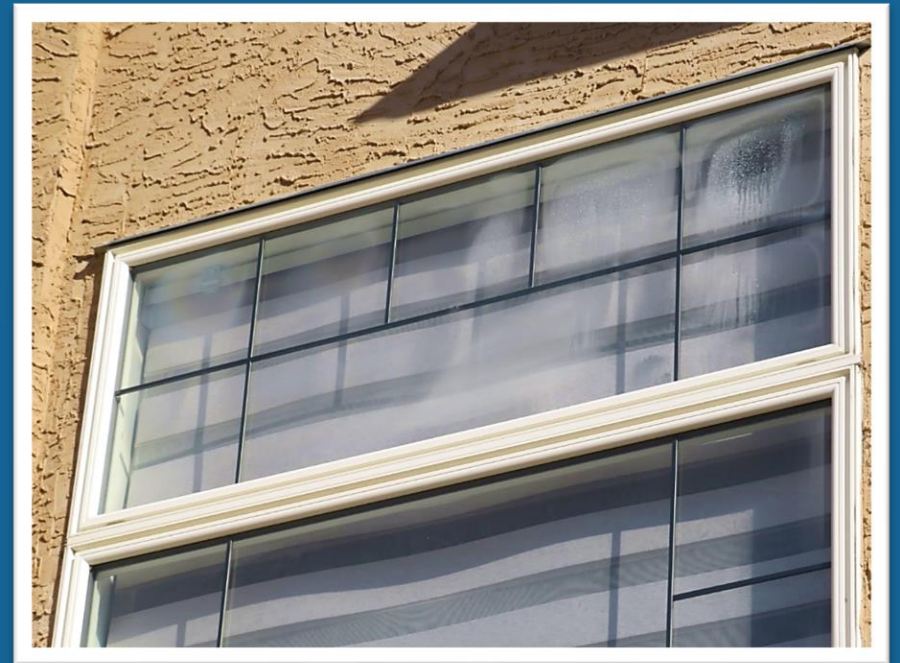


# FAILED WINDOW SEALS

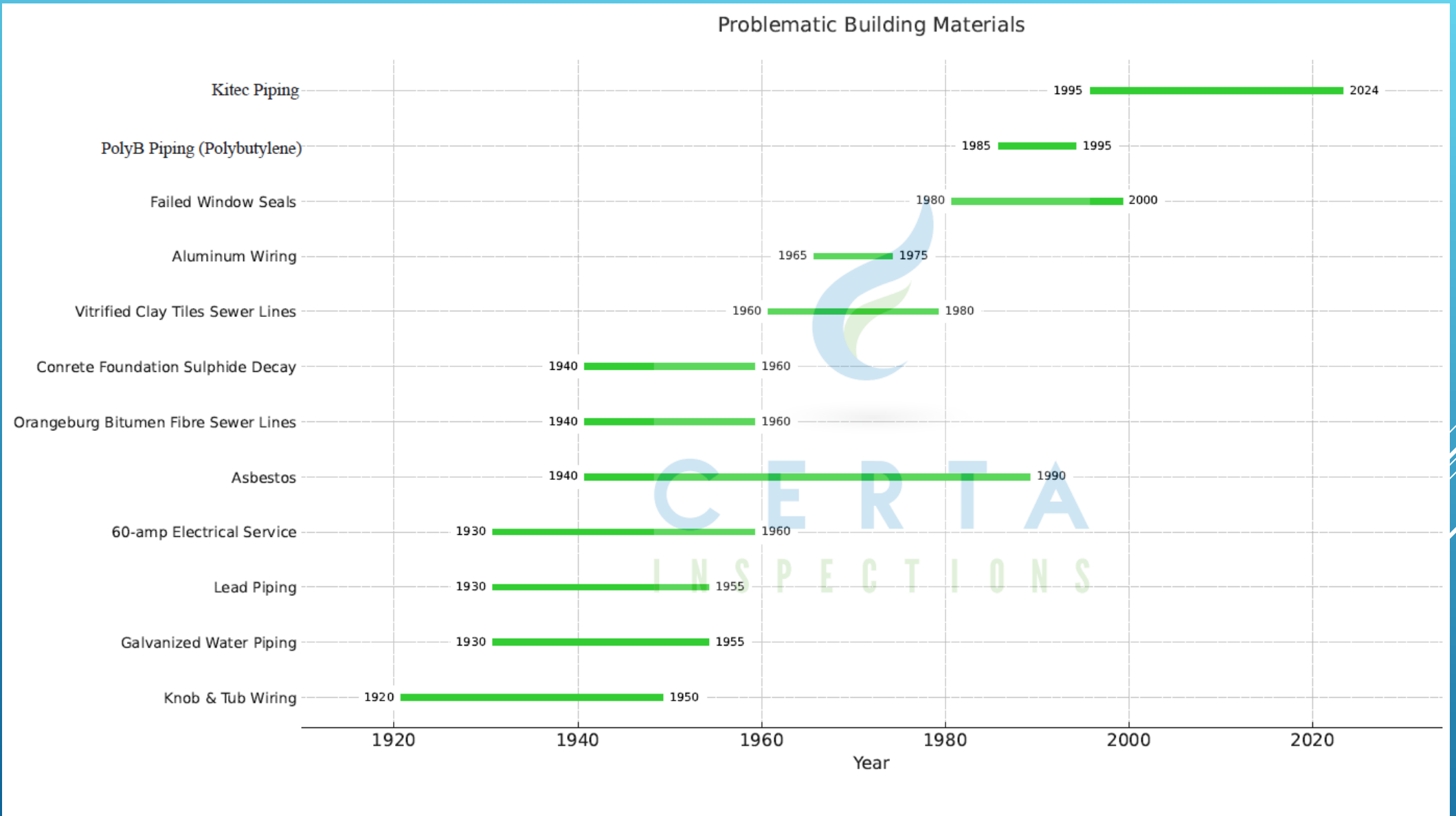
OFTEN CONSIDERED A COSMETIC DEFECT DUE TO FOGGING AND STREAKS, FAILED WINDOW SEALS CAN BE COSTLY TO REPLACE.

IF YOU SEE RUST, CONDENSATION, OR WATER STREAKS BETWEEN THE PANES THAT YOU CANNOT WIPE OFF FROM BOTH THE INTERIOR AND EXTERIOR PANEL; THIS GENERALLY INDICATES A FAILED SEAL.

WHILE FAILED WINDOW SEALS ARE GENERALLY NOT AN IMMEDIATE CAUSE OF CONCERN, YOU SHOULD BUDGET ACCORDINGLY. WINDOW SEALS OFTEN HAVE A LIFE SPAN OF 25 -30 YEARS.



# PROBLEMATIC BUILDING MATERIALS TIMELINES



# CERTA INSPECTIONS

The Ultimate Home Buyer's Guide



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- Commercial Inspections
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