



Hidden Asbestos

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Most people believe all asbestos was banned in the United States in the 1980's; however, this is not the case. Therefore, prior to renovations or demolition, an asbestos building inspection should be performed, regardless of the age of the building, because even building material products that were recently installed can contain asbestos. But first some background: asbestos is used in thousands of products because of its unique properties such as: fire resistance, high tensile strength, great insulation properties, and being generally resistant to chemicals. Asbestos has three common varieties: chrysotile, amosite, and crocidolite.

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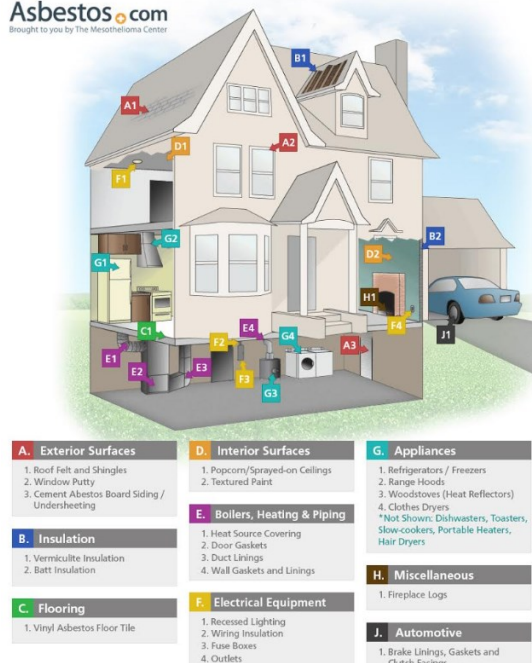


Figure 1: Graphic of common asbestos-containing materials courtesy of Asbestos.com



Figure 2: The six asbestos varieties <http://www.linsch.co.uk/asbestos.php>

Chrysotile (White Asbestos) is the most common and is often contaminated with trace amounts of tremolite. Chrysotile fibers are fine in texture and possess high flexibility and excellent heat resistant properties. It is ideal for use within cement, drywall, adhesives, roofing materials, and flooring.

Amosite (Brown Asbestos) is mined mainly in Africa. Amosite is a very strong and heat-resistant type of asbestos. It is commonly used in cement sheets, plumbing, and electrical insulation.

Crocidolite (Blue Asbestos) has very fine and brittle fibers. It is commonly used in ceiling tiles, spray-on coatings, cement products, reinforced plastics, plumbing gaskets, and steam engine insulation.

Three rare asbestos varieties are **actinolite, anthophyllite, and tremolite**. These rare types of asbestos were not intentionally mined, but are found as trace asbes-

tos varieties in other types of asbestos. All six asbestos varieties are considered hazardous to human beings.

You might not be aware of some of the common uses of asbestos, but our inspections always include decorative plaster, sprayed-on ceilings, suspended ceiling tiles, drywall, mudding compound, mastic, roof tar, window caulking, cement piping used in air handling systems, and biocide flooring. We sample the usual suspects and typically find chrysotile, but have found asbestos in unusual materials. As a general rule, if we observe a material with a unique look or peculiar finish we will collect samples.

For example, an interior decorative brick wall that contained round white marble accents caught our attention during our initial inspection. The mortar was sampled along with a piece of the round white marble. The mortar did not contain asbestos; however, the white marble contained 60% amosite asbestos.

Another uncommon source of asbestos was found in a material used as sound proofing panels on walls of an auditorium (Figure 3). The sound proofing material



Figure 3: Sound proofing panels found on the walls of an auditorium.

compound, which are common sources of asbestos. The drywall and mud joint compound did not contain asbestos, but the sound proofing panels did.

While conducting an inspection at a former masonic lodge, some hardwood floorboards were buckled due to water intrusion, which permitted access to the underlying materials. Wood is not on the list of suspected asbestos containing material, however, felt paper was observed beneath the hardwood floor. This felt

paper was analyzed and found to contain 70% chrysotile asbestos. Normally this would have been hidden, but must be sampled when it is observed.

Asbestos can also be found in wall cavities that are not typically included in the initial inspection. For example, during a demolition project, the contractor punched a hole in the exterior concrete block wall of a school and loose insulation spilled out (Figure 4). Demolition was halted, the loose insulation was analyzed, and vermiculite/tremolite asbestos was identified. An asbestos abatement company was engaged to remove the loose insulation before the demolition of the school building resumed.



Figure 4: Loose insulation spilling out of a hole in an exterior concrete block wall.

Pre-demolition and pre-renovation inspections are recommended in buildings of all ages because asbestos has been used in building materials for over 150 years. More importantly, the inspection should not be limited to the most common suspect materials because asbestos has been used in unique and unexpected ways. For more information, please call our team of experts at 800.255.2800 or find us online at www.asti-env.com.



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Tech-Bits is a publication of ASTI Environmental, PO Box 2160, Brighton MI 48116-2160. For a free subscription call 800-395-ASTI or visit www.asti-env.com