



Vermiculite

VERMICULITE – Commercial name was Zonolite

Vermiculite is a natural mineral that expands with the application of heat. The expansion process is called exfoliation and it is routinely accomplished in purpose-designed commercial furnaces. Vermiculite is formed by weathering or hydrothermal alteration of biotite or phlogopite. Large commercial vermiculite mines currently exist in South Africa, China, and Brazil.

Although not all vermiculite contains asbestos, some products were made with vermiculite that contained asbestos until the early 1990s. Vermiculite mines throughout the world are now regularly tested for it and are supposed to sell products that contain no asbestos.

The former vermiculite mine in Libby, Montana, did have tremolite asbestos as well as winchite and richterite (both fibrous amphiboles) — in fact, it was formed underground through essentially the same geologic processes as the contaminants. A vermiculite mine in Virginia has also been found to be contaminated by asbestos.

Pure vermiculite does not contain asbestos and is non-toxic, but it can become contaminated over long periods if there is a presence of a secondary mineral called diopside. After millions of years of weatherization, the biotite turns into vermiculite and the diopside turns into asbestos.

The insulation material must be tested to determine if it contains asbestos.

Removal of Asbestos Containing insulation must be performed by Qualified Mitigation Personnel.