## **Asbestos Shingles & Roofing Tiles**

## ABOUT MINERAL FIBER ASBESTOS SHINGLE ROOFS

Asbestos shingle roofs, as they were once referred to, present themselves in a variety of styles

and sizes. Contrary to popular belief, "asbestos shingles and roofs" are not entirely asbestos. In a matter of fact, the bulk of the composition of most of these roofing shingles are of mineral fiber and cement and have asbestos content. This content will vary from manufacturer to manufacturer. Historically, we have seen test results indicating asbestos shingle content from around 5% to as high as 35%. Laboratory testing is the only reliable way to confirm any type of asbestos content and the percentage of the same. The type of asbestos generally used in these materials is known as chrysotile asbestos. This material is



commonly referred to as ACRM (asbestos containing roofing material) or simply ACM (asbestos containing material). These shingles are also known as "transite" material, or a rigid board type material made up of mineral fibers and Portland cement mixtures. The two major differences in the way asbestos is presented is the friability factor. Being friable means the ability to be, or become, airborne. One should know that the matrix of transite material is so tight that it becomes difficult to create a fiber release instance unless the material is mishandled or in a state of decomposition. Regardless of how we know them today, they are like any other potentially dangerous material and require proper care and handling. (see historic asbestos shingle installation documents)

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## **HISTORY**



Asbestos is a mineral which was formed millions of years ago. An interesting material it is as heavy and dense as marble yet remains a simple nugget of silky fibers. It will not burn or rust and resists erosion. Its composition is primarily magnesia, silica and some alumina, ferrous oxide and water. Its fibers are smooth and non-tubular hence separating it from all other known types of fibers.

The concept of the asbestos shingle was born out of need. As architectural variations flourished, and the different needs of roofing conditions changed, it became apparent that there be offered roofing materials that would provide "absolute" protection

from any possible weather condition. Furthermore, with the awareness of huge annual fire losses, the selection of a roofing material that could not burn or carry fire became even more of a priority than the architectural value. The mineral fiber asbestos roofing material seemed to offer it all.

The first use of the asbestos roofing shingles and siding occurred in Europe in the late 1800's and its extensive use kindled the desire and the need for the product in the United States. The first American made asbestos shingles were manufactured by the Ambler Asbestos Shingle & Sheathing Company in 1905. They had two facilities, one in Ambler, PA and the other in St. Louis, MO. They initiated sales offices throughout the eastern United States.

Like any great entrepreneurial concept, similar ideas and companies with the desire to compete sprung up and by the 1920's most major roofing supply companies such as Carey, Johns-Mansville, Century, Eternit and others were in full production of asbestos shingles, siding and simulated lumber products. Since the peculiar properties of asbestos were well adapted to commercial uses, the products created included applications for heat conservation, electrical and plumbing insulation and other conservation purposes. It eventually evolved into the auto industry, with most brake lining facilities using the asbestos processes. Regardless of the use or the location of the factory, much of the Chrysotile Fibre asbestos came from mines in Canada and Arizona.

Asbestos has always stood uniquely alone, a rock as old as the world which has remained virtually immune to the forces of heat, weather, moisture and wear. It can also be manipulated into a variety of useful forms and shapes. It is quarried in much the same way that stone is mined and except for its color it looks like ordinary rock. It is only after the process of mechanical manipulation takes place that the extracted fibres can be changed into the multitude of useful articles used throughout the years.

Having been a mere curiosity of the ages it eventually became a widely used mineral with a wide range of useful and technologically related



applications. And, as time went on the eventual dangers of the product also became apparent. Today, while asbestos still has beneficial and practical uses, the way it is used and handled has become paramount and any type of handling must be performed according to the specified standards.