

WHAT IS ASBESTOS?

At it's peak, it is estimated that asbestos fiber consumption in the United States averaged 800,000 tons annually. It was not until the mid-1970's that use was sharply reduced, partially as a result of increasing health and safety considerations and liability concerns of the part of manufacturers. Just what is this asbestos people ask? Asbestos is the name of a group of natural minerals that separate into strong, very small fibers. Incombustible, durable and easily attainable is why this "miracle mineral" has been widely utilized in construction and industry. The size of asbestos fibers is quite amazing when you consider the fact it is mined and processed from the earth and not a man made material. It has been said if you are in a room with asbestos present and see an asbestos

fiber in the air, there are an estimated one million you cannot see due to their size; or if you laid one million fibers end to end, they would stretch out for about an inch. Because it is naturally occurring, an asbestos mineral can be obtained by mining deposits that formed at great depths within the earth and they have since been exposed at the earth's surface by natural processes. Because asbestos minerals are formed under conditions of very high heat and pressure deep within the earth, they are resistant to the regimes of temperature and pressure found in our everyday environment at the surface. Thus, asbestos minerals are ideal as fire proofing. Due to they are fibrous, they are also excellent acoustic and thermal insulators.

WHY DID WE USE ASBESTOS?

Between 1900 and 1980, some 30 million tons of asbestos were put in place. Since the 1970's, however, asbestos use has declined significantly. The United States now mines and processes about 200,000 tons of asbestos every year into hundreds of different products. Each type of asbestos has certain qualities and is used for different purposes.

Chrysotile asbestos has fine, long fibers that are strong and resist heat. Long fibers are woven into fire-proofing cloths, e.g., theatre curtains and fire blankets. Shorter fibers are used in making products to resist heat and friction, e.g., brake linings. The shortest fibers are used to strengthen products, e.g., cement pipe.

Amosite asbestos fibers are known for high resistance to heat. It can resist temperatures up to 480 degrees celsius and is used in making various types of insulation, e.g., pipe coverings.

Crocidolite asbestos is also known for heat resistance. Long and short fibers have different uses. Long fibers are woven into heat insulating fabric, e.g., boiler blankets. Shorter fibers are used in certain cement products.

Anthophyllite and **Tremolite** fibers have similar uses. They have a high resistance to most chemicals. The fibers are used in producing filters, e.g., beer strainers.

Most construction materials containing asbestos are mixtures. Piping insulation can range from 90 percent asbestos to only a few percent in old magnesium silicate block. Sprayed asbestos products have been banned from use as building materials since the 1970's.



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