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HANDLING KAYLO PRODUCTS

What Does Kaylo Mean

The letter "K" is an engineering term which means the rate that heat goes through one inch of insulation. Good insulation will let only a small amount of heat pass through it; then the "K" factor is low. (heat loss). From this the trade name Kaylo originated.

What is Kaylo Material

Kaylo material is a solid formed by a chemical reaction of lime, white sand, and water, with fibers added to give toughness.

What are Kaylo Products

Kaylo products are made in two different weights known as light, about 10 pounds per cubic foot, and heavy, about 20 pounds per cubic foot.

The heavy material is used for:

Roof Tile
Doors
Core Material
Wall Panels

The light material is used for:

Pipe Insulation
Vessel Insulation
Flat Block Insulation

Is Kaylo a New Material

Kaylo is a relatively new type of insulating and structural material. Experimental work was done with the manufacture of this material as early as 1930. It was in 1938 that Owens-Illinois first turned its attention to this new material and a pilot operation started in 1942.

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What Has Owens-Illinois Done to Investigate the Health Aspects of Kaylo

It has always been a cardinal policy of the Company that the Safety and Health of its employees and those who handle and use their products be properly protected. Owens-Illinois made three types of investigations:

A. All employees of the plants were given pre-employment physical examinations including chest X-rays and annually thereafter. Since the very beginning of the pilot plant operation no employee has shown any evidence of lung damage, dermatitis or other physical ailments traceable to the handling of Kaylo.

B. Arrangements were made with the New Jersey State Health and Labor Departments, Workmen's Compensation Insurance Carrier and the Industrial Hygiene Section of Owens-Illinois for special investigations and recommendations. Both Workmen's Compensation claims and group insurance claims were studied to determine if exposure was a factor in any sickness. None of these investigations and studies have shown any connection between working with Kaylo and the physical well being of the employee.

C. Owens-Illinois has followed closely the experience of people in the field who cut, fit and handle Kaylo materials. No complaints have been received from any user reflecting any health or physical impairment on the part of the people handling Kaylo material. Good reports have been received from them comparing the working with and handling of Kaylo to other materials.

D. Arrangements were made with The Saranac Laboratory to conduct experiments on the health aspect of Kaylo dust. This work started in 1945 and continued until completion in 1952. It explored the nature of lung reaction in animals who breathed Kaylo dust.

D. Cont'd.

The factory shipped dust to the Laboratory taken from the dust collectors as deposited from the normal manufacturing operation. A room was constructed 8 x 8 x 8. In one corner of the room a hopper was erected and filled with Kaylo dust. By means of a paddle that rotated inside the hopper a cloud of dust was generated. This was maintained eight hours per day, five days per week, and for four hours on Saturdays. The room was operated for more than five years. About 450 animals were used in the experiment and some of them lived continuously in the dust room for as long as three years. At regular intervals animals were killed and the lung tissues examined to determine the nature and extent of dust reaction. The tissues were also analyzed to estimate the amount of Kaylo dust retained in the lungs of animals exposed for definite periods of time. The conclusions of the research work done with Kaylo dust on animals were:

(1) That there is no possibility of developing Silicosis.

(2) That there is no danger of developing Asbestosis with normal handling of Kaylo products. Test showed that continued exposure to concentrated Kaylo dust inhaled over a long period of time was capable of producing in animals increased tissue growth typical of Asbestosis. The reaction was milder than what pure Asbestos dust would produce.

(3) That the dust has a slightly unfavorable influence upon a tuberculous infection after extensive exposure over a long period of time.

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General Conclusions

Experience in the factories, and field and research findings have proven that normal handling of Kaylo products is safe from a health standpoint. The usual precautionary measures taken for any product containing Asbestos are needed in a continued exposure to heavily concentrated Kaylo dust.

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