

CleanGlass is Safe

AMORPHOUS GLASS – IT WON'T HURT YOU

What happens when you grind up glass and some of the fine particles become airborne? It looks and acts like dust. The presence of dust in the working environment or even in an open area has become a concern to the health and safety officers for public and private operations. Silica dust, not glass dust, is a known hazard and long term exposure is linked to silicosis, a disabling lung condition.

Since glass is made out of silica, the connection is immediately made, and concern for worker safety is often expressed when producing or handling the glass sand. At this point, it is very important to know the difference between the crystalline structure of silica sand and the amorphous structure of glass.

Silica sand in its natural state has a crystalline structure that has the capacity of “sticking” to lung tissues. Once the silica is fired and fused with other ingredients to make glass, the chemical/physical structure of the glass is now called amorphous. Glass is amorphous with a closed structure that doesn't absorb anything and doesn't physically stick to tissues. If a person is exposed to amorphous glass fines or dust, the body can expectorate the dust as it would any other type of natural dirt. OSHA simply classifies the glass dust as a nuisance dust.

If you generate some glass dust as you recycle glass, dust suppression or dust collection systems can be used to keep the levels of dust down for the comfort of the operators and the cleanliness of the working environment. Common sense applies and the same health and safety practices apply here as they would for any other type of dusty environments.

In fact, if pulverized glass is being used in a high speed impact application like abrasive cleaning (also known as sandblasting), studies show the fines produced by glass are safer than other commonly used sandblasting media.

If used as landscaping sand, or beach sand, the fine dust is not crystalline silica and it not a health concern.

Now, how are you going to remember the difference between crystalline and amorphous silica? Remember the Latin word “amor”? You will find it in words like amorous or enamored. This Latin word for love is the description of glass that you will love...Amorphous glass.