

## Toolbox Talk

### Silica Dust

Crystalline Silica is one of the most common minerals in the earth's crust. It is in a huge variety of building products like concrete, tile, brick and block, drywall, composite siding, grouts/mortars/adhesives, and most hard surfaces. On a molecular level it is a crystal in shape, meaning it has sharp edges and many points.

#### Why is it bad?

Crystalline silica is easily inhaled, and is very common and present in all aspects of construction. When it reaches the lungs it is embedded into the tiny air sacks of the lungs causing scarring and irreversible damage to the tissues, defined as Silicosis. The health effects from Silicosis are: Lung Cancer, Bronchitis, Chronic Obstructive Pulmonary Disorder (COPD), increased risk of Tuberculosis, Renal Disease, and Scleroderma. In most cases, diseases from Silicosis come from years of exposure.

Silica has been a known hazard for decades, but unlike Asbestos, we cannot simply stop using it. In 2016 OSHA revised the standard and it has become a major focus in recent years.

#### When is it hazardous?

Anytime there is a dust cloud from a stone based product (drywall, brick/block, tile, glass, concrete, mortars and muds, hard surface counters like granite/marble/composites) The tasks of grinding, cutting, sanding, polishing, or sweeping any of these materials will produce a silica dust cloud.

#### How do I protect myself?

- Eliminate the opportunity for dust by using water or a filtered vacuum
- Stay out of the dust cloud
- Wear proper PPE like dust masks, respirators, and face shields
- Whenever possible, cut material outdoors or in high ventilated areas.

OSHA has also given us a very helpful and specific reference guide. In the Silica Regulation there is a table of 18 common construction activities, and what you should do to make the situation correct. Full table can be found at OSHA.gov

#### Questions for your team:

1. What are we doing today that will make a dust?
2. What will we do to minimize that dust?
3. How can we make this an easy standard practice?