

Handling, Fabrication and Silica-Safety Guide

Prefabricated and Engineered Quartz Countertops

Use this guide with the Petros® Safety Data Sheets. It is general guidance and does not replace your own exposure control plan, your employer's duties, or local, state and federal rules.

1. How the pieces are supplied

Petros countertops arrive fully prefabricated. They are installed as delivered

2. The hazard in brief

Intact finished pieces are safe to handle. Cutting, drilling, grinding, edging, polishing, chipping, breaking or demolishing granite or engineered quartz creates dust that contains respirable crystalline silica. Repeated breathing of this dust can cause silicosis (an incurable and sometimes fatal lung disease), lung cancer, COPD and kidney disease. The dust is easily visible.

3. Receiving, handling and installing delivered pieces

- Pieces are heavy and brittle. Use two or more people, slab clamps, vacuum lifters, A-frames or a crane or forklift rated for the load. Carry long pieces on edge, never flat by hand.
- Wear safety shoes with toe protection, cut-resistant gloves, safety glasses and a helmet when lifting overhead.
- Dry-fit first, then bond with the specified adhesive or sealant.
- Clean with damp cloths or a HEPA vacuum. Never dry sweep or use compressed air.
- Store indoors, upright on A-frames with restraints, dry and protected from impact. Keep away from hydrofluoric acid and fluoride cleaners.

4. If an unplanned modification is unavoidable

Task	Controls	Respiratory protection and notes
Cutting or cut-outs	Wet cutting with a constant water flow, or a tool with a dust shroud. Support the piece to avoid cracking.	Follow Table 1 of 29 CFR 1926.1153 for the tool, location and duration, or measure exposure.
Drilling	Wet core bit with water feed, or a dust shroud with HEPA extraction.	NIOSH-approved respirator with a protection factor suited to the task. A paper dust mask is not adequate.
Grinding, edging, polishing	Wet tools only, with water at the contact point. No dry grinding or dry polishing.	Keep other workers out of the area; collect slurry and dispose of it properly.
Clean-up and waste	Wet wipe or HEPA vacuum. Collect slurry and dust in sealed, labeled containers.	Never dry sweep or use compressed air, including on clothing.

5. Fabrication controls (for any shop that cuts or finishes the product)

- Use wet methods, or enclosed CNC and bridge saws with integrated water, and local exhaust ventilation with HEPA filtration where wet methods are not possible.
- Keep a written exposure control plan, name a competent person, train workers, and keep respiratory protection (medical evaluation, fit testing, training under 29 CFR 1910.134) and medical surveillance in place. Silica is regulated under 29 CFR 1910.1053 (shops) and 29 CFR 1926.1153 (construction).

- Separate dust-generating work, keep non-essential people out, and keep food, drink and smoking away. Change out of dusty clothing before leaving work.

6. Do not

- Do not use compressed air or dry sweeping on dust, tools, skin or clothing.
- Do not rely on a nuisance dust mask, open windows or fans as the only control.

7. If you are exposed or feel unwell

Move to fresh air. Flush eyes with clean water for at least 15 minutes if dust gets in them. See a doctor for cough, breathlessness or chest tightness, and tell them you work with stone dust. Symptoms of silicosis can appear years after exposure. More information: www.osha.gov/silica-crystalline-silica and the Petros® Safety Data Sheets, Sections 7, 8 and 11.