



HOW TO REMOVE NONFRIABLE ASBESTOS-CONTAINING FLOOR TILE

A Guide for Meeting DEQ Rules

Exposure to asbestos fibers can result in severe health impacts and the Department of Environmental Quality (DEQ) regulates the removal, handling and disposal of asbestos-containing materials (ACM) during construction, remodeling, and demolition. This document outlines handling procedures for removing asbestos-containing vinyl floor tile.

The safest way to handle vinyl asbestos floor tiles (VAT) is to make sure the material stays in a nonfriable condition. Friable asbestos materials can easily release fibers when crushed. Nonfriable asbestos materials have a binder that holds the asbestos fibers within a solid matrix and will not allow asbestos fibers to release easily, unless mishandled, damaged, or in badly worn condition. In most cases, VAT is considered nonfriable.

Nonfriable asbestos materials in good condition are exempt from some DEQ rules. You **do not** need to be a DEQ licensed asbestos contractor or DEQ certified asbestos worker to do nonfriable asbestos removal. If you remove VAT using this guide, the VAT should remain in nonfriable condition.

Nonfriable material must be handled, transported, and disposed of in a way that prevents it from becoming friable and releasing asbestos fibers. For more information about the asbestos rules or if you have questions contact one of the DEQ regional offices:

Eastern Region Bend at (541) 388-6146

Eastern Region Pendleton at (541) 278-4626

Eugene LRAPA (541) 736-1056, ext. 222

Northwest Region in Gresham at (503) 667-8414 x 55022, x 55018, or (800) 452-4011

Western

Region Salem at (503) 378-5086, or (800) 349-7677

Western Region Medford at (541) 776-6010, ext. 235 or (877) 823-3216

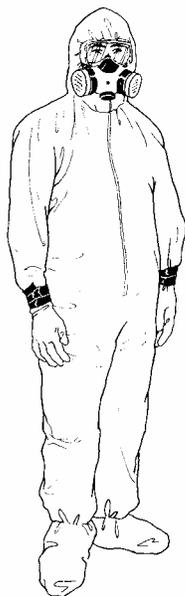
Western Region Coos Bay at (541) 269-2721, ext. 22

When handling this material in schools (K-12), contractors should be aware of U.S. Environmental Protection Agency (EPA) Asbestos Hazard Emergency Response Act (AHERA) rules. Contact the EPA's regional office for more information at (800) 424-4372.

Oregon Occupational Safety and Health Division (OR-OSHA) has rules about worker training, building surveys, and the safe handling of nonfriable asbestos. (See OAR 437, Division 3, Construction.) Contact OR-OSHA at (503) 378-3272, for current rule and policy information.

Sheet vinyl flooring with an asbestos-containing backing is always considered friable asbestos-containing material!

SAFETY EQUIPMENT



Respirator: The DEQ suggests you purchase a dual cartridge respirator equipped with two HEPA (high efficiency particulate air) filters for use on this project. The HEPA cartridges are color-coded purple or magenta. Ask your vendor for a fit test to make sure that your respirator fits properly.

NOTE: Oregon OSHA may require contractors to provide respirators and other safety equipment to their employees during projects where asbestos is being removed.

Eye Protection: Each person removing VAT products should wear non-fogging goggles or safety glasses.

Coveralls: You may want to obtain tyvek (paper) coveralls to keep dust off your clothing.

Boots: Laceless, pull-on type rubber boots are advised to protect your feet from sharp edges and nails. Rubber boots can be washed to remove asbestos contamination.

TOOLS



- Φ A garden type water sprayer, a garden hose, or spray bottles.
- Φ Liquid detergent, mixed with water to help water soak into the floor surface.
- Φ 4 inch and 6 inch wide putty knives, used to lift tiles.
- Φ Wide paint or stiff floor scraper, used to lift tiles and scrape off mastic/glue.
- Φ 3 to 6-mil thick plastic sheeting, used to cover counter tops, walls, vents, and floor registers.
- Φ Leak-tight containers, such as plastic bags, barrels or plastic wrapping. Burlap bags, paper sacks or cardboard boxes can be used as inner packaging to avoid rips and tears.

THE WORK WILL BE DIFFICULT

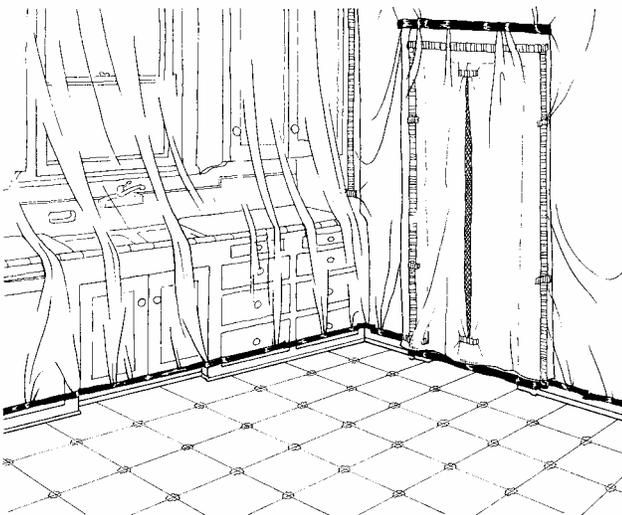
Even under the best conditions these projects are physically demanding and potentially dangerous. The following are some of the problems you will be faced with:

- Φ Breathing through a respirator is difficult and places extra stress on the heart and lungs.
- Φ Coveralls can be hot and hard to move around in.
- Φ Work is done mostly on your hands and knees, or while bent over.
- Φ Goggles or safety glasses often reduce visibility and field of vision.
- Φ Care must be taken around electric wires because water is being used to keep the asbestos wet.
- Φ The work area will be slick from wetting and become a slip/trip hazard.

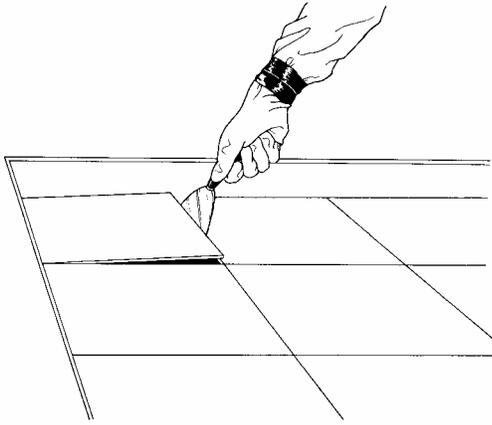
A. PROCEDURES FOR THE ABATEMENT OF VINYL ASBESTOS FLOOR TILE

VAT must be removed, handled and disposed of in predominantly whole pieces to be considered nonfriable. The method of removal cannot shatter, crumble, pulverize, or reduce the material to dust. Sanding, sawing, grinding, chipping, and the use of power tools are not allowed. If this guide is used, licensing as a DEQ asbestos contractor and DEQ worker certification are not needed

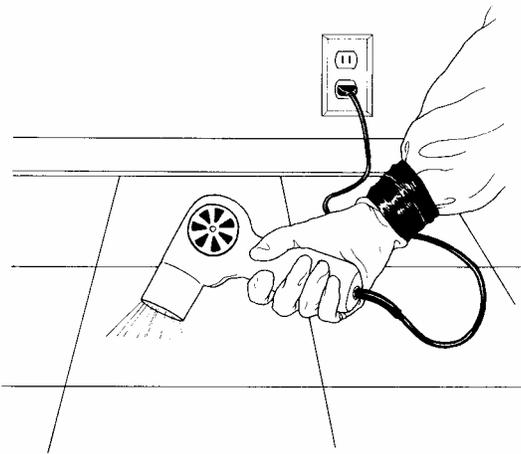
1. **Notification:** File a DEQ notification and pay the nonfriable fee as outlined in OAR 340-248-0260. The notification must be received by the DEQ Business Office at least 5 days before you start the nonfriable removal. *If you are the owner occupant of a single-family dwelling doing asbestos removal on the home you live in, you do not need to file a notification*



2. **Prep Work:** Use the plastic sheeting to isolate doorways, cover floor registers, and cover cupboards and other materials to prevent fiber migration. Put a separate piece of plastic down in the area where removed material is to be stored. Plastic sheeting may also be used to package removed VAT.
3. **Wetting:** The VAT must be kept wet during removal. This can be done by using a water hose, garden sprayer, spray bottles, or any other method that keeps the material wet. DEQ suggests that you soak the floor area at least two hours before removal; this will help loosen the tile. If there is cement under the VAT, you may want to flood the floor with water the night before you remove the VAT. This will help loosen the tiles and make removal much easier.
Wetting prevents fiber release and migration.



- 4. Tile Removal:** After soaking, choose a doorway or entry area to start your removal. Use a wide putty knife or flat floor scraper and gently pry up tiles while working into the room. Only hand methods may be used. Keep the tile in whole pieces and take care to **minimize or prevent** breakage. For example: The ideal outcome of a nonfriable floor tile removal should result in only larger pieces and whole tiles left for disposal. If the tiles are breaking into four or more pieces you must alter your method of removal. This may include changing to a full-scale friable asbestos removal project, using the procedures described in section “C” below.



- 5. Tile Repair:** For single tile removal or small repair areas you may be able to use a heat gun (**not a hair dryer**), dry ice, or solvent.

NOTE: *A heat gun, dry ice, or solvent should only be used for removing 1 to 3 tiles. If you use solvent, make sure the area is well ventilated.*

NOTE: *The DEQ knows that some breakage and damage will occur during this process. However, this breakage will be minimized if you follow this guide.*

- 6. Packaging:** DEQ suggests you put the VAT in leaktight containers, such as plastic bags, fiber or metal drums, or plastic wrapping. The leaktight containers should be marked “DANGER ASBESTOS-CONTAINING MATERIALS”. The asbestos-containing waste material (ACWM) must be kept wet until disposed of at an authorized landfill.
- 7. Disposal:** DEQ suggests you fill out an ASN-4 waste shipment report for transport and give it to the landfill upon arrival. You must dispose of the asbestos waste at a landfill authorized by DEQ to handle asbestos waste. The DEQ advises you to contact the landfill before you remove asbestos, so you can find out what that landfill’s disposal needs are. **DEQ rules do not allow on-site burial of asbestos waste materials. Nonfriable asbestos waste may not be used as clean fill!**

B. USE THE FOLLOWING PROCEDURES TO HANDLE ASBESTOS GLUE OR MASTIC.

1. If the mastic is still pliable and tacky, not hard and brittle, then the glue is exempt under OAR 340-248-0250. This material need only be disposed of at a landfill authorized to handle asbestos waste.
2. If the mastic is hard and brittle, **all** applicable asbestos rules under OAR 340-248-0005 through -0280 must be followed. The DEQ considers brittle, worn mastic to be friable. This material must be removed using the procedures listed in section “C” below. For more information contact the DEQ.

C. USE THE FOLLOWING PROCEDURES WHEN THE REMOVAL MAKES THE VAT FRIABLE; OR IF ASBESTOS BACKED SHEET VINYL IS BEING REMOVED.

The following procedures apply to removal of VAT when sanding, grinding, chipping or shattering is the method of removal or removal of sheet vinyl that has an asbestos-containing backing:

1. All asbestos abatement rules under OAR 340-248-0005 through -0280 must be followed. A friable asbestos notification and fee must be filed with the DEQ as outlined in OAR 340-248-0260. Contact the DEQ for more information.
2. Hire a DEQ licensed asbestos abatement contractor, if you are not an owner occupant doing work on the residence you live in.

D. BUILDING DEMOLITION

1. All buildings that are to be demolished must have a survey performed by an accredited inspector to determine the presence of ACM.
2. All asbestos must be removed from buildings before they are demolished, unless exempted by rule.
3. If the floor mastics and glues have a petroleum binder and are in good condition, still pliable, and not brittle or dry, they may be left in place during demolition provided all building debris are then disposed of as asbestos-containing waste. If you want to remove the mastic, use the procedures in section “B-1” above.
4. All other nonfriable materials must be removed according the procedures in section “A” above.
5. All friable asbestos or asbestos materials that will become friable during the removal process must be removed using the procedures in section “C” above.