

WHAT TO DO DURING FREEZING TEMPERATURES IN SOUTHERN CLIMATES

Water damage from frozen pipes that burst can be a major problem for homeowners in southern states, maybe even a bigger problem than in the colder north.

Home builders in the south often do not consider the threat of freezing weather and thus place water pipes in vulnerable locations. In addition, houses built on slab foundations, common in the south, frequently have water pipes running through the attic, an especially vulnerable location. In the north, by contrast, home builders know freezing is a threat, and they usually do not place water pipes in unheated portions of a building or outside of insulated areas.

Southern homeowners should be aware that pipes in attics, crawl spaces and outside walls are all subject to freezing and bursting. If these pipes don't have insulation or heat to protect them, a strong overnight freeze can cause trouble.

Homeowners in the south need to be alert to the damages of freezing and bursting water pipes when the outdoor temperature threatens to drop to 20 degrees F. Although 20 degrees F is well below the freezing temperature of water, two factors make this the critical outdoor temperature:

1. The temperature of an unheated portion of a house is almost always at least a few degrees above the outdoor temperature. For example, an insulated attic may be at 37 degrees or 38 degrees F when the outdoor temperature is 32 degrees F.
2. Water "supercools" several degrees below freezing before any ice begins to form.

In research tests at the University of Illinois, water pipes placed in an unheated, insulated attic consistently started forming ice when the outdoor temperature dipped just below 20 degrees F.

The 20 degrees F threshold is primarily for homes in the south and other areas where freezing may occur only once or twice a season.

These suggestions for homeowners in southern states will help them prevent freezing pipe damage:

- Pipes in attics and crawl spaces should be protected with insulation or heat. Pipe insulation is available in fiberglass or foam sleeves. Home centers and hardware stores have sleeves providing 1/8 to 5/8 inches of insulation; specialty dealers have products that provide up to 2 inches of insulation. (Check the Yellow Pages under "Insulation" or "Plumbing Supplies" for sources.)
- Heating cables and tapes are effective in freeze protection. Select a heating cable with the UL label and a built-in thermostat that turns the heat on when needed (without a thermostat, the cable has to be plugged in each time and might be forgotten). **Follow the manufacturer's instructions closely.**
- Doors on cabinets under kitchen and bathroom sinks should be left open during cold spells to allow the warmer air of the room to circulate around the pipes.
- Exterior pipes should be drained or enclosed in 2-inch fiberglass insulation sleeves.
- Pipes leading to the exterior should be shut off and drained at the start of the winter. If these exterior faucets do not have a shut-off valve inside the house, have one installed by a plumber.
- Hoses should be removed and stored inside during the winter.
- Let faucets drip slowly to keep water flowing through pipes that are vulnerable to freezing. Ice might still form in the pipes, but an open faucet allows water to escape before the pressure builds to where a pipe can burst. If the dripping stops, it may mean that ice is blocking the pipe; keep the faucet open, since the pipe still needs pressure relief.