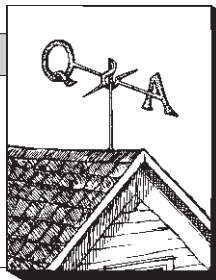


Vinyl Window Durability

by Hank Spies



Q. How well do vinyl-clad windows hold up to extreme temperature changes? Will the vinyl split near the corners in hot weather or open up in cold weather?

A. There are two types of vinyl-clad windows—one has a full vinyl cladding and the other is clad only on the part of the sash that faces outdoors. The latter are subject to moisture from inside the house, which can move through the wood and condense behind the plastic cladding, possibly causing decay. The fully-clad sash have welded or sealed corners, and have proven quite durable.

In general, vinyl should never be painted, since the increased heat absorption may cause the vinyl to distort. If it is necessary to paint a sash to match other sash on the house, choose a sash that was manufactured in a dark color. The vinyl is usually thicker and the attachment different.

In the rare event of water leakage, the wood inside the vinyl is dip-treated with preservative chemicals to provide basic protection against decay—though this is certainly not as good as pressure treatment. While I have no research data on durability, the Anderson Perma-Shield windows in our office building have performed flawlessly for 21 years, with temperatures from -20 to 100°F.

Septic Alternatives

Q. I would like to provide a septic system for a new bathroom in an old vacation house in rural Maine. The house is on a steep, rocky hill, so a conventional septic tank and drainfield is not practical. Is there an alternative system you would recommend?

A. There are three possible answers to your problem. The first is a simple holding tank, which is pumped when it is full. By using a low-water-use toilet (one-gallon flush) this may be practical for a vacation cottage.

The second is an aerobic one-house treatment system, which is similar to a municipal treatment plant on a small scale. With these, the effluent can be discharged to the storm drainage system, even on the surface. Some jurisdictions require that the effluent be chlorinated, but there are simple systems to do so.

The third alternative is the composting toilet. The one that has been around a long time and seems to work well is the Clivus Multrum, developed by the Rockefeller Foundation. It is available from Clivus Multrum Inc., 21 Canal St., Lawrence, MA 01840; 508/794-1700.

An electric incinerating toilet is available from Incinolet, 2639 And-john, Dallas, TX 75220; 214/358-4238. Other sources for composting toilets include Thetford Corp., P.O. Box 1285, Ann Arbor, MI 48106; 313/769-6000. They also make recreational-vehicle toilets, which would be adaptable to the holding tank system. Sanitation Equipment Co. (35 Citron Ct., Con-

cord, Ontario, Canada L4K 2S7; 416/738-2467) also makes a composting toilet with a long history of success.

Just Hot Air?

Q. Are turbine vents effective for attic ventilation? I've heard that the spinning looks good but does not actually boost the ventilation rate.

A. The research data on the efficiency of turbine vents is not generally available because most of the tests were done for manufacturers of specific products. This usually means that the tests did not come out too well for the turbines, or the manufacturers would be flooding the industry with good reports. The results that I have been able to pin down indicate that the turbines do not turn in a wind below 2 mph, but the larger opening in the roof (typically 120 square inches vs. 50 square inches for mushroom vents) does increase ventilation. In winds 2 to 12 mph, the results are nearly the same as the equivalent net opening of mushroom vents. At wind speeds above 12 mph, the turbines apparently do increase the ventilation. In most areas, the average wind is less than that. In inspecting houses, I have found that many turbines more than five years old have been taken off their pivots because they squeaked, and that many more had been closed with plastic bags during the winter, which is when attic ventilation is needed most.

Tilting at Windows

Q. Several customers have requested European tilt-and-turn windows. Can you describe the advantages and disadvantages of these windows, and tell me where I can get them?

A. The tilt-and-turn windows have major advantages—they seal like a bank vault; they can be opened at the top for ventilation while remaining secure; and the windows swing completely clear of the opening for use as an emergency exit. One of their main disadvantages is that they swing or tilt in, which conflicts with the interior window treatments common in the United States. Curtains and valances would have to be able to completely clear the opening, and blinds and similar treatments could not be used. A second disadvantage is cost, which is generally greater than top-line domestic windows.

I know of only a couple of sources: Marvin Windows, Warroad, MN 65763 makes custom windows with tilt-turn hardware, and REHAU Window Systems, P.O. Box 1706, Edwards Ferry Road, Leesburg, VA 22075 imports them from Germany. ■

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