

ASK THE EXPERT:

Dust Infiltration



I live in the dry south west and constantly battle dust and wind coming through my windows. Are my windows faulty? What can I do to prevent and control the dirt?

In many areas of the United States, strong wind and fine soils create issues regarding dust infiltration, which can affect all fenestration products (i.e.; windows and doors). Window and door manufacturers are required to test their products to meet industry standards for air infiltration, water intrusion, and structural integrity. These tests have parameters that must be met for the window to become certified. The products, which achieve certification, are then labeled to reflect their compliance in meeting these standards. MI Windows and Doors tests its products to meet those standards.

Even when closed and locked, all operational window and door products can experience air infiltration because the operating component is designed for movement (i.e. the operational sash). Air infiltration occurs as air under pressure enters the home, which may occur through certain points on a locked window. The operating components have weather stripping to reduce air infiltration, but it is not feasible to eliminate all air leakage due to the operational function of the window. Windows with these characteristics routinely meet the common industry standard.

Dust infiltration is found at these operating points; usually when winds exceed residential standards of twenty-five miles per hour. Also, high winds may cause a slight deflection of the sash component allowing the opportunity for dust particles to be forced into the home. Please note: if excessive dust is allowed to build up on the exterior sill between the sash and screen, then even normal wind pressures will force dust inside the home.

Dust infiltration appears most prevalent in arid regions, new construction areas, and farming areas. Once landscaping is established and the amount of dust particles are reduced in the air, then problems often decrease substantially. Below are tips on how to reduce dust infiltration.

Tips for Controlling Dust Infiltration

1. Remove excessive dust on the sill outside of you window between the sash and screen as often as necessary to prevent build up.
2. Establish a lawn as quickly as possible.
3. Use mulch and water flowerbeds around the home.
4. Clean the bottom sash weatherstrip periodically to insure a tight seal on the sill of the window.