

Why do I have frost on the inside front door casing of a new door?

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Kevin from frosty Regina, Saskatchewan writes: "I had a new steel door installed this summer. When the temperature outside drops below -15 c, frost develops on the bottom of the interior casing. Is this due to a lack of insulation behind the casing? Also the bottom of the exterior threshold appears to have no covering or insulation." Kevin sent pictures. The first photo shows one side with frost on the inside trim and in-between the door and the frame. The other side of the door is the same. Look carefully at the second picture. I doctored it a bit to make it clearer. The light brown thing in the front is the welcome mat on the front porch. Notice that you can see right under the door sill. You can see the shims on the right. There is not only no insulation under this metal door sill, but no effort at all to block the snow, rain and especially wind from coming right in under the door. The contractor completely forgot to finish the job. In the third photo I drew how I believe the wind is simply flowing in under all of this, and I bet flowing into a poorly insulated and certainly not sealed section between the finished frame and the rough frame of the house behind the trim. Kevin, take the trim off the door and insulate and seal all behind the trim air tight. Then use the foam in a can, to put a small quantity as far back under the door sill as you can. Squirt a small amount from one to the other. Wait about 20 minutes for it to swell up. Use "Great Stuff" as that is the least expansive foam you can get in ordinary stores. Then foam it again, just a little and let it expand completely. If you try to do it all in one pass it will probably lift the sill up and jam the door. After you get close to the outside edge, then caulk the last bit, as the foam will not stand up to sunlight. That frost should just disappear -- like your contractor did, and stay away -- like your contractor should.

Keywords:

Caulking, Frame, Doors, Air Leakage, Sill, Frost, Ice