I am thinking of putting plastic film over my windows for the winter. Is there any value in this?

Yes, but mostly for windows that are old or in bad condition. If installed well, using plastic heat shrink films can provide three key areas of benefit. Putting plastic film over a window is almost equivalent to adding an extra pane of glass on the window. This could mean up to a 50 percent decrease in heat loss through the glass of your window, but little or no reduction in heat loss through the window frame. So the better your windows, the less benefit you’ll get from plastic films.

Applying a plastic layer can actually decrease condensation (one of the few interior treatments that doesn’t cause moisture problems). Although the film cools the surface temperature of the glass, it also acts as a vapor barrier and prevents large amounts of warm, moist air from reaching the cooler glass. If you can see a haze or droplets of water near the bottom of your windows, that’s a sign that your windows could use an upgrade or that the humidity in your house is too high.

The plastic film can also help to reduce discomfort from cold window surfaces by reducing convective currents that form when air is cooled by the glass surface, causing it to fall and create a draft. If positioned well, plastic films can sometimes be used to help reduce cold air coming in past window edges and seals.

All of these benefits rely on proper installation. The common plastic films available at the grocery or hardware store do not insulate by themselves, but instead add insulation by trapping air between the glass and the plastic film. The optimal air gap to create is between 3/8 and 3/4 of an inch. The double sticky tape must be sealed continuously and smoothly to the window frame surface in order to trap air effectively; otherwise, air and water vapor will sneak through. This will become quickly apparent, as condensation will build up behind the plastic film.

Be sure to use plastic on widows that house pets and children can’t get to, because puncturing the plastic will ruin it. Unfortunately, covering windows with plastic limits visibility somewhat, depending on the quality of the installation and the lighting. The finishing touches are achieved by blowing a hair dryer on the plastic to tighten it and smooth out the wrinkles. This part is crucial to getting the best light transmittance, so take your time and work carefully.