## \$ensible Home

by James\_Dulley

Dear Jim: I want to install something on my windows and door glass to block the sun's heat and glare, but I want to be able to remove it during the winter. What do-it-yourself options are available? - Robert H.

Dear Robert: There are several do-it-yourself options to improve the energy performance of glass during the summer. With the high cost of heating, it makes sense to remove heat- and sun-blocking improvements to get full benefit from free solar heating during the winter.

Glare from large windows The same room as the photo above, only shown with removable tinted static-cling window film to reduce the glare. Both photos by Gila Films. Static-cling window film may be applied with a squeegee. Photo by Solar Stat. You mentioned reducing heat and glare. In order to block heat, it is best to stop it before it gets through the glass into your home. Blocking glare can be accomplished from either indoor or outdoor improvements.

A good method to help both summer problems is applying removable tinted static-cling window film to the glass. It is made of vinyl and it sticks to glass by a natural static charge. This is basically the same type of film which you peel from a screen of a new television or clock LCD display.

The film is available in bronze or smoke tints and is purchased in a roll. To install it, you cut the film slightly larger than the window. Spray the glass and film with water or glass cleaner and squeegee it to the glass. Cut off the excess and squeegee the edges to the glass. During the winter, peel it off the glass and reroll it on a tube for storage.

This film is designed for indoor use on single-pane windows. If you have double-pane thermal windows, do not apply it to the indoor surface because it may cause the glass to overheat and the seal to leak. Although it will not hold up as long, the film can be installed on the outdoor glass surface.

If you prefer decorative windows, static-cling film panels are available with decorative patterns such as stained or etched glass, floral and seascape scenes. These films are applied in the same way as tinted film
Interior and exterior shades are another option. The exterior ones, some of which slide in tracks, are most effective for heat and glare control. The interior roller shades, which use smooth or embossed tinted film or sun-control fabrics, are effective primarily for glare.
Solar-control window screening is also available and it can be installed in any screen frame. It is often made of fiberglass or polyester and has a dense weave to block the light and heat. Even though it looks very dense from a distance, you can easily see through it to the outdoors.
Removable hanging screen doors are effective for over patio doors or any door with a large window. They are specifically designed to stop insects and be easy to walk through, but they also function well to block the sun.
The following companies offer removable window film and shades: Artscape, (877) 729-0708, www.artscape-inc.com, Bug Off Instant Screen, (800) 700-5081, www.bugscreen.com, Halcyon Shades, (800) 234-2280, www.halcyonshades.com; North Solar Screen, (866) 230-4700, www.northsolarscreen.com; and Solar Stat, (800) 783-0454, www.solarstat.com.
Dear Jim: I am having my gas furnace replaced. I want to be as green as possible. My contractor wants to install a condensing furnace with PVC vent pipe which is not recycled. Should I go with a noncondensing one instead? - Patsi S.
Dear Patsi: You are correct that PVC pipe is not highly recycled as are some of the thermoplastic materials such as polyethylene. The commonly recycled plastics generally will soften and lose strength as they are heated.

For a green standpoint, you are still better off installing the condensing furnace with PVC vent pipe. The environmental benefits from using less gas over its life will far outweigh disadvantages of using PVC pipe.
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