



Energy Efficiency Bulletin

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Tips for Keeping Mobile Homes COOL

Shading and Reflecting

Heat from the sun shining through windows and on roofs is a major reason for needing mechanical cooling systems. The most effective way to reduce solar heat is simply to block it, using shade trees, vines and trellises, metallized window films, awnings, sun screens and bright roof coatings.

Reflective Roofs and Walls

Dark colors are inappropriate for walls and roofs in hot climates because they absorb too much solar heat. If you repaint your exterior walls, choose white or another very light color.

When you re-roof your home, choose a reflective roofing or roof coating. The most common reflective castings are asphalt-based coatings, mixed with aluminum particles and mineral fibers. They reflect about 60% of solar heat hitting the roof. These reasonably-priced asphalt coatings vary in quality, mainly due to the amount of aluminum particles in each five-gallon container. The better coatings which are of course more expensive, contain more aluminum and are more reflective. Be sure to stir this asphalt/aluminum coating vigorously and often during its application.

Bright white latex rubber coatings reflect up to 75% of solar heat. These latex coatings are more dependent on proper surface preparation than asphalt coatings. The roof surface must be clean and dry before application. Some latex coatings require a primer coat.

Most large hardware stores and lumber yards carry both asphalt and latex roof coatings. Follow the manufacturer's instructions for surface preparation and application.

Interior Window Treatments

Another way to block solar heat effectively is with interior window treatments with reflective surfaces, either metallized or bright white.

Opaque roller shades with white surfaces facing out repel about 80% of the solar heat entering the window, but they also block most of the light and all of the view. White Venetian blinds repel 40-60% of the solar heat and again block most of the light and view.

If you want to retain some light or view, install roller shades made with metallized plastic window film. Like reflective films applied directly to glass, these metallized plastic roller shades can preserve the view and transmit some light while blocking most of the heat.

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Shade Treatments for Single-pane Glass

Percent of Solar Heat Blocked by Window Treatments

Sun Screen (indoors)	20-30%
Colored Venetian Blind	25-40%
Draperies – light colored	40-55%
Opaque Rolling Shade (dark exterior)	45-50%
White Venetian Blind	45-50%
Window Films	40-75%
Rolling Shade Sun Screen (outdoors)	65-75%
Opaque Rolling Shade (white exterior)	75-80%
Aluminum Louvered	80-85%
Sun Screen Awnings	50-90%