



The Basics About Window Films

Improving the performance of the windows you already have

The National Fenestration Rating Council (NFRC) rates the energy performance of windows, doors, and skylights. It also independently certifies the performance of window film. These ratings are fair, accurate, and credible because the rating system is independent – manufacturers have no say over how their products are rated.

Why Window Film?

Older existing windows can have a huge impact on the energy efficiency of a home. The installation of NFRC-certified window film may provide a cost-effective solution for about one-tenth cost of an average replacement window and last nearly as long - about 20 years.

Benefits of Window Film

In addition to the potential improvements in the efficiency of your windows, the application of film can offer other benefits as well, such as:

- Increased security against breakage
- Prevention of scratching of the glass
- Reduced fading of carpet, furniture, paint, or artwork
- Improved privacy
- Reduced glare
- Improve energy efficiency and lower solar heat gain
- Up to 99% rejection of UV rays



Photo courtesy of IWFA

The International Window Film Association (IWFA) recommends having window film professionally installed to guarantee the right film for your needs and windows, to improve appearance, and to make sure window film performance meets your expectations.

Valuable Online Resources

One way to find NFRC-rated products is to look for the NFRC label (see back for more information).

- * Information specific to window film, how to find a professional dealer installer, and information on the benefits of installing film, please go to www.iwfa.com.
- * Since you can't always see the label on window film products sold in stores. NFRC also makes its ratings available on its website at <http://tinyurl.com/APDSearch>.
- * More information on the NFRC label and how it works for windows, doors, skylights, and window film, can be found at www.WindowRatings.org.

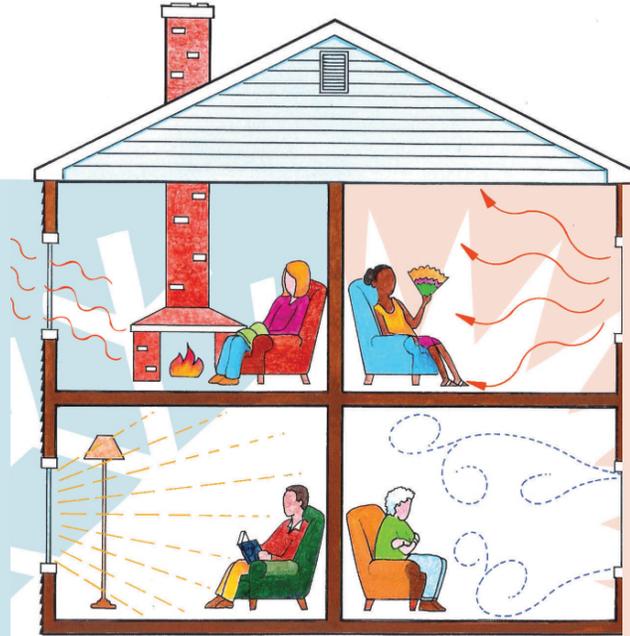


Photo courtesy of IWFA

Understanding the NFRC Label

U-factor measures the heat from **INSIDE** a room that can escape. The lower the number the lower the potential for wasted heating expenses.

Visible Transmittance measures how much natural light can come into a room -- a **HIGH** number means more natural light.



Solar Heat Gain Coefficient measures the amount of **OUTDOOR** heat that can enter a room. The lower the number, the lower the potential for wasted cooling expenses.

Air Leakage measures how much air will enter a room through the product. The lower the number, the lower the potential for draft through the product.

The NFRC Label

The label on a product presents the results of Independent ratings from NFRC-certified laboratories. Without the NFRC label, the product is not certified.

The **CPD Number** allows you to find information on the manufacturer, product, and performance rating of the window. Make a note of this number when you remove the label and save it with your home documents. The Certified Products Database (CPD) can be accessed via www.nfrc.org.

Solar Heat Gain Coefficient (SHGC) measures how well a product blocks heat from the sun. SHGC is expressed as a number between 0 and 1. The lower the SHGC, the better a product is at blocking unwanted heat gain. Blocking solar heat gain is particularly important during the summer cooling season.

Visible Transmittance (VT) measures how much light comes through a product. VT is expressed as a number between 0 and 1. The higher the VT, the higher the potential for daylighting.

U-factor measures how well a product prevents heat from escaping a home or building. U-factor ratings generally fall between 0.20 and 1.20. The lower the U-factor, the better a product is at keeping heat in. U-factor is particularly important during the winter heating season. This label displays U-factor in U.S. units. Labels on products sold in markets outside the United States may display U-factor in metric units.

NFRC ATTACHMENT RATINGS

XYZ Applied Film Company • Deluxe Green Film
CPD#000-X-1 (Interior)

This rating uses reference product energy performance - actual product performance may vary.

ENERGY PERFORMANCE RATINGS

Reference Product		U-Factor		Solar Heat Gain Coefficient		Visible Transmittance	
Type	Glazing	W/O Film	With Film	W/O Film	With Film	W/O Film	With Film
Residential	Single Glazed Clear	1.09	1.01	0.71	0.40	0.74	0.57
	Double Glazed Clear	0.66	0.67	0.63	0.44	0.67	0.52
Non-Residential	Single Glazed Clear	1.02	0.93	0.72	0.43	0.78	0.60
	Single Glazed Gray	1.02	0.93	0.51	0.35	0.39	0.31
	Double Glazed Clear	0.60	0.53	0.62	0.47	0.69	0.54
	Double Glazed Gray	0.60	0.53	0.41	0.32	0.35	0.27

Manufacturer stipulates that these ratings conform to applicable NFRC procedures for determining whole product performance. NFRC ratings are determined for a fixed set of environmental conditions and a specific product size. NFRC does not recommend any product and does not warrant the suitability of any product for any specific use. Consult manufacturer's literature for other product performance information.
www.nfrc.org

NFRC administers an independent, uniform rating and labeling system for the energy performance of fenestration products, including glazing windows, doors, skylights and window films.