

The Five Cs of Low E Window Film

“The Five Cs” is a simple way for you to remember the five most important benefits low emissivity (low e) film provides over window replacement. These are Cost, Convenience, Cooling, Care, and Carbon. By memorizing the argument behind each of these “Cs”, you are well positioned to offer low e films as an attractive alternative to window replacement.

Cost

Choosing to retrofit existing windows rather than replace them saves money. Retrofitting an existing window with a low e film costs from 60% to 80% less than replacing the window with a new low e version (depending on the film product and the region).

Convenience

Retrofitting existing windows with high performance low e coatings is significantly more convenient than replacing windows. Applying retrofit low e window film takes only a fraction of the time it takes to knock out an existing window, fit a new one into the hole in the wall, and secure it into place. Applying window film is also cleaner, quieter, generates very little waste, and can be done with minimal disturbance to building occupants.

Cooling

In addition to providing building envelope insulation during colder times of the year, solar control window films also have excellent solar heat gain reduction properties. The Solar Heat Gain Coefficient (SHGC) of low e window films is better than most low e windows. A low e window film such as Solar Gard Silver AG 50 Low E has a SHGC coefficient of .47 and provides total solar energy rejection (TSER) of 53% on 4mm double pane glass.¹ As a result, low e window films provide year round savings during both hot and cold times of the year.

Care

Solar Gard low e window films block over 99% of damaging ultraviolet (UV) radiation, providing building occupants and furnishings with an extra layer of protection.² The coatings on standard low e windows block only about 30% of UV radiation.³

Carbon

Solar Gard’s low e solar control films have been scientifically proven to be carbon negative on a global basis.⁴ Solar Gard is the first window film manufacturer to prove the carbon impact of its architectural solar control window films by conducting a full cradle-to-grave life cycle analysis (LCA) on its products. As a result, Solar Gard architectural solar control films, including its low e films, produce a net carbon reduction in greenhouse gas emissions (GHGe) worldwide.

¹ Solar Gard Silver AG 50 Low E performance results calculated using National Fenestration Rating Council (NFRC) methodology and Windows version 5.2 according to industry standards and norms.

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³ Based on window film comparisons with data published in the International Glazing Database, Version 17.4.

⁴ According to Solar Gard’s Environmental Product Declaration (EPD) published with The International EPD® System in Europe (www.environdec.com) and The Green Standard in North America (thegreenstandard.org).