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The Problems with Window Films

The window film industry has been controlling a great portion of the "window efficiency" market since its creation. These relatively thick sheets of rubberized plastic (composed of dye and metallic) help block portions of solar radiation entering a building through windows. They are in a sense, the last line of defence against infrared (heat) and ultraviolet radiation. By cutting down a building's exposure to infrared radiation, window films can assist in lowering overall energy bills. They do however possess qualities that are undesirable and negative. The following is a brief list of why window films should not be used:

- Films block all portions of the solar spectrum; infrared, ultraviolet, and light. By blocking significant portions of light, added lighting within a building is required running up energy bills in the process: added cost of lighting and added cost of cooling due to heat given off by added lights.
    - The average tint of a window film ranges between 50-85%: blocking more light than heat.
    - These tints also cause changes to the exterior appearance of a building which can directly cause depreciation in property values.
    - After a prolonged period of time, the tint factor of a window film starts to deteriorate and change causing color fading.

- Being relatively thick (1 to 8 millimetres) optical distortions occur on a regular basis. This means images may appear larger, smaller, wider, narrower, faded, discolored etc.
    - The large tint factor mentioned above also plays a large part in these optical distortions.
    - The composition and thickness of window films cause movements of the actual film on the window causing it to shrink or expand.
    - Films are an "alien" material to windows and therefore often come off, peel, or bubble.

- Their plastic composition make window films extremely hard to clean and in most cases impossible.
    - Only the best window films can be cleaned using household products such as Windex, only when waiting a period of 30 days after installation.
    - No abrasive cleaning chemicals or materials such as vinegar or paper towel can be used as they will easily decompose and break the film.

eTime Energy's HPS-G window coatings do not experience the above mentioned problems of window films. Being a nano-coating (8microns thick) HPS-G is able to imbed itself into glass at a microscopic level. This allows the coating to become a part of the glass and not an alien material attached to a window's surface. HPS-G window coatings are beneficial over window films for the following reasons:

- Very low tint levels – usually between 10-25%: blocking more heat than light
- Very thin layer of product causing no optical distortions
- Since HPS-G becomes a part of the glass it does not peel, fade, discolor, or bubble after any period of time.
- All conventional cleaners can be used on windows coated with HPS-G.

From the above information it is relatively easy to understand what differentiates window films from eTime Energy's HPS-G window coating. Although both products block impressive amounts of heat, they differ on their blockage of light. Also being an alien material attached to a window's surface, films tend to change the visual appearance of a structure while at the same time distorting views from the interior to the exterior and visa versa. Since HPS-G is extremely thin, there are no issues with cleaning or deterioration where films cannot be cleaned using conventional methods and shrink or expand over time.

*The above information was composed using material sourced from Governments, Universities, and Engineering firms.