HOMEOWNER REPAIR GUIDE

WINDOW GLASS OPTIONS

With all the “hype” about new windows, homeowners sometimes wonder if there is any benefit to keeping their old windows, but replacing the glass. Are new glass options better than the original glass? The short answer is that it depends on what you mean by “better.”

If we are just talking equivalent quality of a flat, single pane of glass, there probably isn’t much difference to the ordinary homeowner. While manufacturing techniques have evolved to reduce visual irregularities, glass is still glass – unlike new wood, which is often of inferior quality when compared to the materials used 60-100 years ago. There probably isn’t much, if any, benefit to replacing an old pane of glass with an equivalent new one, unless it is broken or damaged.

HISTORIC/AESTHETIC FACTORS

In fact, older glass (especially from 80+ years ago) can have some cosmetic irregularities that are typically viewed as adding to or preserving their historic and aesthetic value. People often pay a premium to get “old” glass or reproduction glass when replacing broken or damaged panes in historic windows. So, old glass may look “better.”

INSULATION/EFFICIENCY FACTORS

Older windows ordinarily use a single piece of glass (“single pane.”) New windows are usually “double pane,” or even “triple pane,” which means that they have multiple layers of glass with sealed air space between the panes – like a layer cake, but where the cake is air and the filling is glass. The reason for these layers is that they provide additional insulation, giving them a higher R-value. The challenge, however, is that it often costs a lot of money to get those new windows, and the resulting increase in R-value isn’t all that much.

> **GOOD TO KNOW**
>
> **There are many other ways to increase efficiency and insulation value that are far less expensive than replacement windows.**

So, a multiple-pane, gas-filled unit may be “better” in that it is more efficient, but that efficiency comes at a significant cost that can easily exceed the energy savings. The middle ground, which can make sense in some situations, is re-fitting old window sashes with new, sealed double pane glass.

SAFETY/SPECIAL USE FACTORS

There are also types of specialty glass you can choose for a new window or for a re-fit to an existing window, depending on your needs.

GLASS TYPE	WHY IT MAY BE "BETTER"
Tempered	Tempered glass (like in a car window or shower door) breaks into small pebbles rather than sharp shards, and is "better" from a safety perspective if broken. (That might make it a good choice for a window on a stair landing, where a person who falls into the window could be badly injured by glass fragments.)
Laminated	Other types of glass are laminated with plastic, so that they hold together even if broken.
Shaded or reflective coatings	Glass can also be ordered with different types of shaded or reflective coatings that reduce heat from sunlight passing through them; such glass is "better" at reflecting heat in the summer, but you may also lose some of that "extra" heat from the sun on a fall or winter day.

Home Repair Resource center

Home Repair Resource Center empowers homeowners to maintain their homes for sustainable and diverse communities.

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