



Ten Things You Should Know About Fiberglass Insulation

1. Insulations are compared on the basis of R-Value, or resistance to thermal conduction, but gaps and voids inherent in fiberglass batt insulations result in installed performance well below published R-Values. Cellulose outperforms fiberglass (with an R-Value of 3.8 per inch vs. 2.1 to 3.1 per inch for fiberglass) and maintains its high 3.8 per inch installed R-value through pneumatic application procedures that fill every nook and cranny.

2. Heat also moves by convection. Convection occurs within low-density insulation, like blown fiberglass, and around the perimeter of batt type fiberglass insulation. The higher installed densities of cellulose eliminate convective air movement.

3. Heat also transfers by radiation. Blown fiberglass is installed at such low densities that heat radiates right through it. The higher installed

densities of cellulose effectively block radiant heat transfer.

4. The same issues that reduce the thermal performance of fiberglass also mar its effectiveness in preventing sound transmission. A home insulated with cellulose will be much quieter than a fiberglass home.

5. It takes a lot of energy to make fiberglass insulation, up to 12,500 Btu's to make just one pound of it. It only takes 750 Btu's to make one pound of cellulose insulation.

6. Fiberglass melts at temperatures above 1000 deg. F, well below the temperature of a house fire. Fiberglass insulation and kraft facings can allow fire to spread quickly, while cellulose works to prevent its spread.

7. Fiberglass insulations are required to carry a warning label as a possible carcinogen.

8. Fiberglass manufacturers claim up to 35% recycled content. But that includes scrap generated during manufacturing. Cellulose has a genuine 82%+ recycled content.

9. Air, dust and moisture pass easily through fiberglass, which can feed mold and rot causing organisms. High-density cellulose blocks airborne moisture movement. Borates (minerals) in the insulation resist the growth of these organisms, improving building durability and longevity.

10. Fiberglass is inexpensive to install, but it costs a lot more over time because it saves far less energy than cellulose insulation and may also require larger capacity heating and A/C systems. The money 'saved' by specifying fiberglass will be spent many times over during a building's life in increased energy consumption and decreased occupant comfort.

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