

FIBER GLASS

BLOW IN INSULATION

VS CELLULOSE

▶ Facts you should know
before you insulate.





CHOOSING THE BEST insulation

Builders and remodelers face **numerous options** when determining which insulation products to use, and often this decision can be overwhelming. There has been **much debate** in the home improvement and building materials market regarding which type of insulation provides the greatest benefit to homeowners. With our rapidly advancing world, we are constantly looking for the most efficient and safest solution to live more comfortably in our homes.

Over the years, the **most frequently used insulation material has been and continues to be fiber glass**; however, some builders and remodelers use cellulose, a loose-fill insulation product made of recycled newspaper, as an alternative. Depending on the building application, location, and building code requirements, both fiber glass blow in insulation and cellulose can offer superior insulation benefits for homeowners. It is important for builders and remodelers to **know the difference** between fiber glass and cellulose, so they can recommend the **best solutions** to their customers.

How they're **MADE** fiber glass

Fiber glass blow in insulation is manufactured in a lightweight, loose-fill form from micron-thin strands of blown recycled glass and renewable silica sand.

CertainTeed loose-fill insulation is made of naturally non-combustible fiber glass that consists of **rapidly renewable content**, a high percentage of **recycled glass with no formaldehyde, harsh acrylics, dyes or unnecessary fire retardants** added.

cellulose

Cellulose is manufactured in both wet-spray or loose-fill form, using a process called hammer milling, and is generally made up of approximately 80% post-consumer recycled newspaper and 20% fire-retardant **chemical binders**.

The added fire retardancy chemicals significantly improve the fire performance of the product, however, these additives increase the overall product weight and **can be harmful to humans**. Also, cellulose **can be combustible** if improperly installed.





How they're **INSTALLED** fiber glass

Fiber glass's light weight and flexibility **make transportation and installation simple and easy** for any application. Its tightly spun glass strands make the material **less dusty**, resulting in a product that is **easy to handle and install**.

Fiber glass's ability to be highly compressed without degrading its effective R-value allows manufacturers to pack **more product into their bags**, minimizing the space needed for storage and transportation. A blowing machine is used to expand and easily spread the compressed fiber glass blow in insulation to any desired depth.

cellulose

The use of cellulose requires a knowledgeable installer, and if improperly installed, the **cellulose could settle after installation and degrade the thermal protection** of the home. Its use of recycled newspaper makes cellulose **inherently dusty and dirty**, and when wet applied can require up to 36 hours to dry.

Cellulose products are approximately **18% heavier** than blow in insulation due to the amount of added fire retardancy chemicals. In a typical 1,200 sq. ft. room, **3 times more cellulose is required** to insulate, which means consumers must purchase, transport, and store **3 times as many bags**.^{*} This also **introduces an extra 300 lbs. of fire-retardant chemicals** into a home's walls when using cellulose.



^{*} Comparison is based on average weight and cost of a 20 lb. bag of fiber glass insulation compared to a similar bag of a cellulose product.



How they **PERFORM**

fiber glass vs cellulose

Thermal Performance

The ability of fiber glass blow in insulation to provide the desired R-value for any given space **equals or exceeds the ability of comparable cellulose insulation**. Unlike cellulose, fiber glass products do not absorb or retain moisture and when installed properly, they **will not slump or settle over time** and will maintain their stated thermal R-value for the life of your home. **Cellulose products have an average settling rate of 20%**, and because of this, required **R-values are often not** maintained over time.



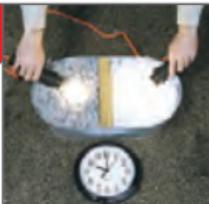
Sound Performance

Both fiber glass and cellulose insulation provide a high level of sound control between interior rooms from outside sources. In most commonly tested assemblies, **fiber glass blow in insulation contributes to equal or higher Sound Transmission Class (STC) ratings than cellulose products**.

How they **PROTECT**

Both fiber glass blow in insulation and cellulose products meet the mandated building code requirements for air and moisture control as well as fire protection of residential and commercial building envelopes.

However, there are combustion concerns with cellulose as demonstrated below.**

START	
60w light, placed on fiber glass blow in insulation and cellulose.	
AFTER 30 MINUTES	
Combustion spreads into cellulose. No effect on fiber glass.	
AFTER 47 MINUTES	
Combustion of cellulose spreads to wood divider. Still no effect on fiber glass.	
AFTER 60 MINUTES	
Combustion has consumed most of cellulose. No effect on fiber glass.	

**Experiment carried out in controlled scientific setting. Replicated results may vary.

The Choice is Simple!

Considering all the benefits of both fiber glass and cellulose, fiber glass proves to be the most economical and reliable choice for homeowners and contractors in today's building environment. **Its ease of installation, flexibility and effective performance makes fiber glass the most affordable choice for a better home.**



The CertainTeed DIFFERENCE

Every decision involving a new home or remodel matters, but **insulation is a choice you only get to make once to ensure a lifetime of Complete Comfort.**

Choosing from CertainTeed's full range of products means you're adding an **extra layer of protection** – one that's backed by industry-leading innovation and building science. You're installing much more than trusted, high-performance insulation. **You're installing confidence.**

Learn more about our complete line of insulation products at certainteed.com/insulation



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