CIMA

NATURALLY BETTER INSULATION

Cellulose insulation is a well-established, proven solution for improving thermal energy efficiency.

- Cellulose insulation is a form of high-performance insulation made from recycled paper.
- The product is cost-effective, safe, and proven effective across a range of applications.
- The product can be utilized in new construction and in retrofits, both in walls and in attics.
- Cellulose is tested against rigorous standards for fire resistance, mold, corrosiveness, odor emission, and water vapor absorption (per ASTM C739).
- The product has a well-established performance and safety history dating back decades.
- Cellulose is often prescribed as the preferred solution by state weatherization agencies.

Expanding the adoption of cellulose insulation can improve our nation's energy efficiency profile.

- 47% of our nation's overall energy usage is related to heating and cooling buildings.
- Electrification of heating and cooling will overload our grid unless building efficiencies improve.
- Air leakage around fiberglass batts can result in substantial decreases in thermal performance.
- Blown-in insulation (whether fiberglass or cellulose) can avoid the leakage around batts.
- Blown cellulose has a higher R-value - thermal resistivity - per inch (3.7) than blown fiberglass (2.2 to 2.7).
- Cellulose is far more cost effective than foam insulation, enabling more retrofits per weatherization dollar.

Cellulose is the only widely utilized form of insulation that stores carbon in the structure itself.

- The use of cellulose in a building assembly can bring the overall carbon footprint of new homes down to zero, or even into the range of net carbon storage
- Production of foam from petroleum products results in prodigious carbon emissions.
- Production of fiberglass is energy-intensive and results in significant carbon emissions as well.
- Cellulose utilizes recycled materials and actually stores carbon in buildings structures, and that carbon is hereby prevented from returning to the atmosphere for decades.

Cellulose is also safer for installers and residents than fiberglass and spray foam.

- Fiberglass is a known respiratory irritant and associated with increased asthma risks.
- Spray foam generates isocyanate vapors, posing health risks to installers and to residents if not fully cured. There are also long-term concerns for exposure potential to residents.
- Cellulose insulation is made from paper sources and inorganic salts such as boric acid and calcium sulfate, which have well-established safety profiles.

Domestic sources can scale rapidly to meaningfully impact America's overall carbon footprint.

- The product has a proven performance and safety history and is installed in millions of homes.
- Thousands of installers are installing cellulose in new homes and retrofit applications today.
- 35 US manufacturing plants provide wide availability through the continental US and Alaska.
- The capital costs of building new cellulose plants are significantly lower than for fiberglass.
- There is plenty of recycled paper: cellulose manufacturing could scale up by 5X, and it would still represent only about 10% of total US paper recycling streams.

Cellulose Insulation Manufacturers Association

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"Cellulose insulation represents a valuable opportunity to store carbon in our buildings while concurrently improving energy efficiency. The product is widely utilized by state weatherization programs because of its performance, cost, and availability."

Chris Magwood
Manager, Carbon Free Buildings
Rocky Mountain Institute

SOURCES:

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