

 **Applegate Insulation**  **ThermoCon**

**“Preferred
insulation
material for
environmentally
concerned
builders and
designers”
– Environmental
Building News**

CELLULOSE INSULATION SYSTEMS



Walls



Attics



Commercial/Industrial

Applegate Insulation® is a field-proven, advanced insulation system designed for use in wall cavities, attics and between floors.

Environmentally Preferred

Builders, architects, and insulation contractors who influence the choice of insulation for many buildings have the opportunity to make a profound impact on the environment.



Applegate/ThermoCon Insulation® complies with federal funding requirements:

- Comprehensive Procurement Guideline for Products Containing Recovered Materials—USEPA guideline 40 CFR part 247.
- Resource Conservation and Recovery Act
- Executive order 12780: "Federal Agency Recycling and the Council on Federal Recycling and Procurement Policy"
- Executive order 12873: "Federal Acquisition, Recycling and Waste Prevention"

Recycled Content

Applegate Insulation® is made with 100% recycled newsprint, an excellent, high-quality end-use for materials that may otherwise be dumped into landfills. In fact, insulating a 1,500 square foot home with cellulose insulation recycles as much newsprint as one individual will use in 40 years.

Manufacturing Energy

Manufacturing fiberglass to insulate the same-sized structure to the same R-value consumes 7 times more energy than it does to manufacture cellulose, and to manufacture polystyrene consumes as much as 30 times more energy!

Emissions

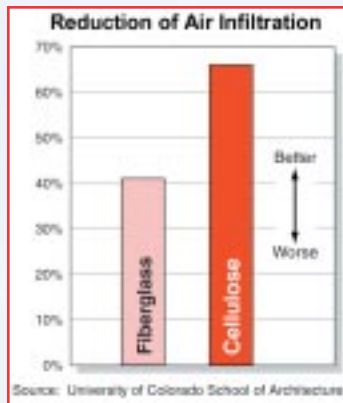
Standing outside a cellulose plant, one can hear humming motors, but there are no smoke plumes and no odors because there are virtually zero emissions.

Fiberglass is produced in large blast furnaces that burn natural gas, generate enormous amounts of chemicals (formaldehyde, urea, polyvinyl acetate, chlorides, etc.) and release greenhouse gases into the atmosphere.

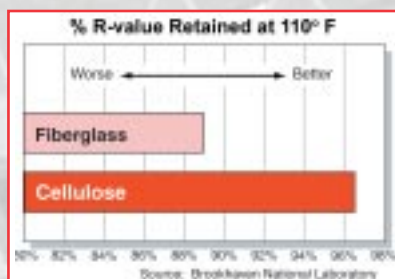
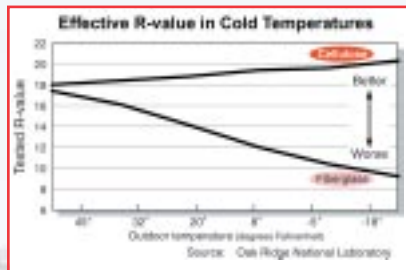
Thermal Performance

A mere 2% in voids and gaps associated with normal fiber glass batt installation can result in an actual decrease in thermal performance of 14 - 42% less than the batts labeled R-value.

According to a study at the University of Colorado on cellulose insulation's superiority to fiberglass, Applegate Insulation® achieves a tighter building cavity and is 26 - 38% more efficient than fiberglass! Two structures were built-identical in every respect but the insulation material. Blower door tests demonstrated that the structure filled with cellulose insulation was 36 - 38% tighter than the mineral fiber material, and the structure with cellulose insulation went on to use 26.6% less energy for heating.



With Applegate's high density and custom fit around obstacles, Applegate Insulation® is able to deliver and maintain it's effective R-Value against other forms of heat transfer through the building envelope (convection and radiation) while, in comparison, other insulations perform poorly.



The Right Stuff for the Job.

Applegate/ThermoCon offers the right product for the right job: industrial, commercial, light commercial or custom residential. Whether you're looking for application in exterior or partition walls, exposed ceilings or attics, Applegate/ThermoCon has the quality insulation product your project requires.



Indoor Air Quality

The National Resources Defense Council states that "no adverse effects from cellulose have ever been identified". The dust from Applegate Insulation® is no more toxic than the dust in a typical home.

Perhaps that's why, the American Lung Association of Virginia has insulated their Breathe Easy® Office Complex with Applegate.



APPLEGATE CELLULOSE INSULATION® Class 1 Building Material

Complies with

- CPSC Standards 16 CFR 1209 and 1404.
- FTC Standard 16 CFR 460
- Requirements of the insulation section of CABO Model Energy code, BOCA, ICBO and SBCCI building codes

Regularly tested in accordance with ASTM Standards C 739-97 and C 1149-90 by a NAVLAP-Certified, third party laboratory:

R & D Services
P.O. Box 2400
Cookeville, Tennessee 38502

Flammability Characteristics:

- Critical Radiant Flux: > .12 w/cm²
- Smoldering Combustion: < 15 %
- Flame Spread: 15
- Smoke Developed: 5
- Fuel Contribution: 0

Environmental Characteristics:

- Fungal Resistant
- Non-Corrosive
- Acceptable Odor Emission

Physical Characteristics:

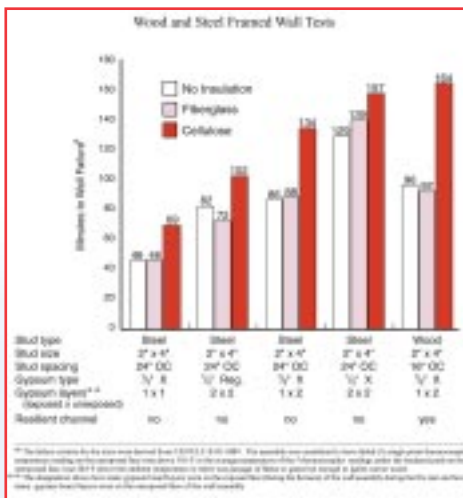
- Density: 1.3/1.6 lb/ft³
- Thermal Conductivity: R-value of 3.8
- Moisture Absorption: less than 15%

Premium-quality cellulose insulation is the only building product Applegate makes. Instead of letting our focus wander to other building products, we've concentrated our energies on making premium cellulose insulation and the training of the people who install Applegate Insulation®.

With a background as a contractor, we understand how important it is to work alongside builders and architects – to understand how what we manufacture and what they use to insulate effects the overall building process. Our staff works with insulators around the country, offering ongoing professional training to continually sharpen the installation methods and techniques of the people installing Applegate.

Fire

Walls insulated with Applegate Insulation® are extremely fire resistant. The International Fire Safety Code permits electrical boxes installed on opposite sides of an Applegate-filled wall to be separated by as little as 3.5 inches, while for fiberglass-insulated walls, the required separation is 24 inches.



National Fire Laboratory of the national Research Council of Canada

While the Gypsum Association states that cellulose does "not adversely impact the fire resistive ability" of the stud partition system, additional tests have gone on to demonstrate that cellulose-insulated walls easily achieve a one-



Firemen rest easy knowing Applegate Insulation® insulates their Mt. Pleasant, MI, fire station.

hour fire rating with just 1/2 inch type X gypsum board, increasing the fire resistance attributable to insulation by about 46%!

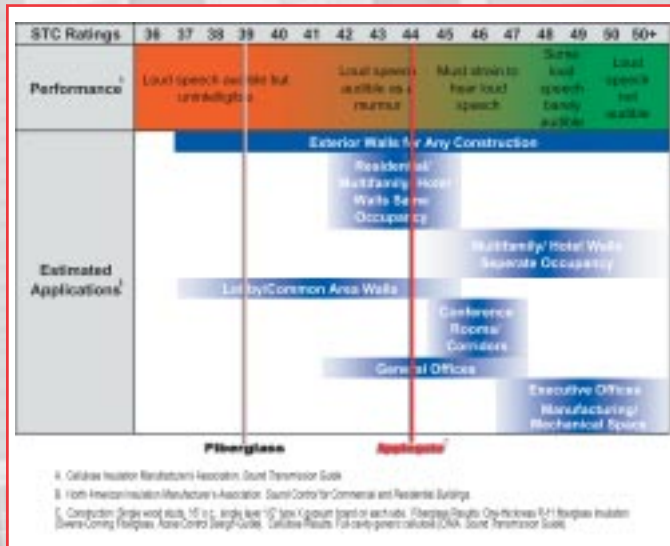
Because the dry-wet process used to make Applegate Insulation® is more advanced than most other cellulose manufacturers, fire retardants are locked in so well that it would take over 300 years at unlivable conditions for Applegate Insulation® to lose its fire retardant ability.

Applegate Cellulose Insulation® has been approved under some local building codes as a fireblocking product.

Sound

Applegate Insulation® is a field-proven noise control insulation, absorbing substantial levels of unwanted sound.

Because sound is often airborne, it will follow the same paths as air infiltration. But the sprayed-in-place Applegate Insulation® creates a monolithic barrier, sealing off voids and gaps that could easily transmit sound. Because of its high-density and seamless coverage, Applegate Insulation® contributes to an excellent STC rating.



	STC Rating	Construction Detail	Fire Rating
Steel Stud Wall Assembly	49	2 1/2" steel studs 24" OC; 1 + 1 layers of 5/8" gypsum board; 2 1/2" Applegate Stabilized	1 hour
	58	2 1/2" steel studs; 24" OC; 2 + 2 layers of 5/8" gypsum board; 2 1/2" Applegate Stabilized	2 hours
	49	3 5/8" steel studs; 24" OC; 1 + 1 layers of 5/8" gypsum board; 1" Applegate Stabilized	1 hour
	52	3 5/8" steel studs; 24" OC; 2 + 1 layers of 5/8" gypsum board; 1" Applegate Stabilized	1 hour
	54	3 5/8" steel studs; 24" OC; 2 + 2 layers of 5/8" gypsum board; 1" Applegate Stabilized	2 hours
Wood Stud Wall Assemblies	44	2" x 4" plate; 2" x 4" wood studs; 16" OC; 1 + 1 layers of 1/2" gypsum board; 1" Applegate Stabilized	1 hour
	47	2" x 4" plate; 2" x 4" wood studs; 24" OC; 2 + 2 layers of 1/2" gypsum board; 1" Applegate Stabilized	2 hours
	52	2" x 6" plate; 2" x 4" staggered wood studs; 16" OC; 1 + 1 layers of 5/8" gypsum board; 1" Applegate Stabilized	1 hour
	55	2" x 6" plate; 2" x 4" staggered wood studs; 16" OC; 2 + 1 layers of 5/8" gypsum board; 1" Applegate Stabilized	1 hour
	57	2" x 6" plate; 2" x 4" staggered wood studs; 16" OC; 2 + 2 layers of 5/8" gypsum board; 1" Applegate Stabilized	2 hours

STC db ratings shown are from actual and calculated test data. Increasing the thickness of the Applegate Stabilized Insulation application by 1/2" will add a calculated average of 4.5 db to each STC rating shown in the charts

Training and Support

- **On-Site Training.** Our service representatives frequent the jobsite of those who install our product—there's no better classroom than the one of real-world experience.
- **Ongoing Training.** The insulation contractors who install our product undergo ongoing training from our service representatives and national dealer meetings.
- **Technical Support.** As the world's largest privately-owned cellulose manufacturer, homeowners, builders, contractors and architects have ready access to the owners and management of the company, their experience, their knowledge and comprehensive technical library.



Why Applegate?

- **Nationwide Service.** Applegate Insulation® is manufactured in six plants in the eastern half of the United States that can ship anywhere.
- **Full Warranty.** Applegate's stands behind their lifetime warranty on properly installed insulation.
- **Integrity.** If you want to stay in business, your word and reputation are everything. Since 1952, the Applegate name has been synonymous with honesty, trust and our commitment to every single customer.
- **Experience.** You will appreciate the fact that Applegate personnel are among the most experienced in the industry. From manufacturing to customer service, their knowledge and expertise have been built over decades.
- **Quality.** Many companies talk about quality, but few invest the time and expense to make it happen. Applegate does. Take our unique hybrid, dry/liquid fire retardant injection system, for example. Making insulation this way is costly and complex, but the result is worth the trouble: a premium-quality insulation.

Work brings wealth;
talk brings poverty.

Proverbs 14:23



Applegate Insulation

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You can also find us under:

