



Healthy Building Materials

Investing in energy efficient upgrades could help improve the health of residents. You can maximize those health benefits by making smart choices, including the right insulation and air sealants. In this pamphlet, you'll find an overview of choices available, along with how to source those materials for future projects.

DTE

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Healthy Building Materials, Healthy Occupants

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DTE CleanVision
Energy Efficiency

Making Healthy Insulation Choices

Insulation is an important component of many energy efficient improvements. And given the quantity of insulation used, insulation choices can greatly affect the total amount of toxic material brought into the building space. Here are some best practices for healthy insulation choices:

- If possible, use expanded cork board, the top-ranked option
- Prioritize fiberglass and cellulose insulation
- Avoid products with formaldehyde-based binders
- If board insulation is required, prioritize rigid mineral wool insulation
- Avoid foam insulation whenever possible
- Use mechanical installation methods

Insulation Rankings, Best to Worst

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| Recommended Materials | Expanded Cork Board | Mineral Wool Batts |
| | Loose-Fill Fiberglass | Mineral Wool Boards |
| | Dense-Pack Fiberglass | Polyisocyanurate (<i>Polyiso</i>) |
| | Spray-Applied Fiberglass | Expanded Polystyrene (<i>EPS</i>) |
| | Fiberglass Batts/Blankets (<i>Kraft-Faced and Unfaced</i>) | Extruded Polystyrene (<i>XPS</i>) |
| | Fiberglass Batts/Blankets or FSK-Faced | Spray Foam Insulation (<i>SPF</i>) |
| | Cellulose/Cotton Batts and Blankets (<i>Unfaced</i>) | |
| | Loose-Fill Cellulose | |
| | Dense-Pack Cellulose | |
| | Wet-Blown Cellulose | |

Finding Healthy Local Products

Buildingclean.org is your one-stop source to find American-made, energy efficient products. This portal is designed to help architects, designers, contractors, developers, and manufacturers deliver the benefits of energy efficiency retrofits – including lower utility bills, improved tenant health, and increased economic development. Visit buildingclean.org

Get the full report here.

This pamphlet summarizes findings from the report “A Guide to Healthier Upgrade Materials,” which examines insulation and air sealing products and provides practical recommendations for moving up the ladder of healthier materials.

The report’s recommendations center on commonly used fiberglass and cellulose insulation, as well as pre-foamed materials and acrylic-based sealants with low volatile organic compound (VOC), as the best materials from a health perspective and recommends their use whenever possible. The full report can be found at bit.ly/guidetohealthierupgradematerials



Making Healthy Air Sealing Choices

As with insulation, air sealing is an important element of energy efficiency. Solid forms of air sealants are usually the best option since many air sealants that are applied wet emit chemicals of concern as they dry or cure.

Here are some best practices for healthy air sealing choices:

- Choose caulk-type sealants over spray foam sealants
- Use foam sealing products that are not reacted on-site
- Avoid phthalate plasticizers
- Choose acrylic-based sealants with very low levels of VOCs
- Use foil-backed butyl tape for HVAC sealing
- Avoid products that are marketed as being antimicrobial

Multipurpose Sealant Rankings, Best to Worst

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|-----------------------|--|
| Recommended Materials | Noncombustible Sodium Silicate Caulk |
| | Expanding Polyurethane Foam Sealant Tape |
| | Acrylic Latex Sealant |
| | Siliconized Acrylic Sealant |
| | Intumescent Acrylic Firestop Sealant |
| | One-Component Silicone Sealant |
| | Modified Polymer Sealant (<i>STPE Sealant</i>) |
| | One-Part Polyurethane Spray Foam Sealant |
| | One-Component Polyurethane Sealant |