

RECYCLED TEXTILE INSULATION



JEANS AS INSULATION, really? Yes, really! It's true. Méfisse insulation consists of the fibers of leftover denim jeans and sweaters. Old discarded clothing gets fiberized and processed into a high-quality insulation product. It consists of 90% recycled cotton fibers. The first stage in the process is to remove any metal such as studs, fastenings, buttons and zips. Then the material is shredded by industrial equipment and finally deconstructed until they are returned to their base material cotton fibers. It looks almost as cotton candy- Converting it is a pretty low energy process, which makes it even more environmentally friendly. The cotton fibers are then treated to make them flame retardant and insect, pest, and mildew resistant. After that they're bonded with other fibers in ovens to stabilise the material before being cut into sheets. The process uses around 3 pairs of jeans per square metre of insulation at 100 mm thickness.

PROS & CONS

By using recycled textile insulation you are helping divert waste destined for landfills. It contains no formaldehyde, and it doesn't have the infamous tiny, itchy fibers to irritate your skin and lungs, like fiber glass does. Furthermore, it also scores on all three pillars of sustainability: since it consists of 90% recycled clothing it is very good for the environment (Planet), the clothing collection and sorting is done by people who are disadvantaged in the labor market (People), and by insulating the energy bill goes down (Profit) and the circle is complete! And of course, the natural cotton fibers are 100 percent recyclable at the end of the insulation's usable life.

As with sheep's wool insulation the low density of recycled textile insulation reduces the thermal conductivity, which means it minimizes the transfer of heat from one material (your home) to another (the air around your home).

This insulation also has a moisture regulating effect. The cotton, which is the principal component of the insulation, is known for being able to regulate hygrometry. It absorbs and desorbs steam, avoiding the formation of a dew point and then returns to its thermal capacity. Its installation, associated with a vapor barrier, contributes to limit the condensation risks and thus moisture development. The material is also made resistant to the growth of mold through chemical treatment.

This kind of insulation is also a good sound barrier where the long cotton fibers of the material creates a three dimensional infrastructure that traps, isolates and controls sound waves. Recycled textile contains no volatile organic compounds or formaldehyde. Installing recycled textile insulation doesn't irritate the skin or the respiratory tract. There is no insect inhibitor in the recycled textile insulation. Tests show that the development of mites is not possible. The insulation returns to its original thickness after pressing. The result is a very constant and high insulation value.

This is a top shelf material thus the cost is higher for it than other less environmentally friendly materials. It also has a slightly lower insulation value than, for example, PIR insulation. With that said, recycled textile insulation is perfect if you are looking for a product with great insulation value, and scores on all three pillars of sustainability.

