



Rockwool

Rock solid environment and health profile



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Division for energy and environment

ROCKWOOL International is working on improving the environmental and health properties of stone wool. A life cycle assessment and a risk assessment confirm the competitiveness of stone wool within the area of environment and health.

At ROCKWOOL International A/S they know better than most how important it is to insulate buildings. These days, almost 70% of the energy consumption of European households is spent on heating, although tremendous savings can be made by optimising insulation – as much as 2/3 of current energy consumption.

Stone wool insulation products have for a number of years been suspected of being both environmentally hazardous to produce and a health risk for the people who install the products. ROCKWOOL has during the same period worked on improving the environmental and health properties of its products and wanted to be able to

tell the outside world about the results.

Life cycle assessment and risk assessment

ROCKWOOL asked FORCE Technology to handle the task of collecting, processing, and communicating existing knowledge. FORCE Technology was chosen due to their expertise within environment and health issues. And as FORCE Technology is an independent body, they would be able to complete the study with a very high degree of reliability.

In order to shed light on all aspects, it



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was decided to perform what is known as a life cycle assessment (LCA) of the environmental aspects and a simplified risk assessment of the work involved in installing insulation materials. In addition to a typical stone wool product, two other insulation products made of flax and paper wool, respectively, were included in the study.

In a LCA you calculate how much a product affects the environment such as the greenhouse effect, acidification and nutrient enrichment. This provides a good picture of the environmental profile of the product. The simple risk assessment gives us both an overview of the potential harmful properties of the product and the extent to which people are exposed to the product in a working situation.

Competitive insulation material

In brief, the results show that stone wool is competitive in terms of both environment and health and safety. Actually, total energy consumption is the lowest when producing stone wool compared to the other two products. However, of the three products paper wool has the least contribution in some of the other impact categories.

In terms of health and safety, available studies show that stone wool must be considered the safest choice, because its properties are well documented. It is especially important that the fibres degrade as quickly as possible in the lungs so that they cannot do any damage, and that the amount of dust produced while working with the product

is below the limit values laid down by the Danish Labour Inspectorate.

Chief Engineer Anders Ulf Clausen from ROCKWOOL International says about the result: “We are pleased to have had a highly professional evaluation of how our own products perform in terms of environment and health. And we are, of course, pleased that stone wool does so well compared to other insulation materials. This enables us to focus on the work that we consider most important, namely reduction of energy consumption for heating”.



Further information

If you want further information on our services or if you need one of our addresses, you are welcome to visit www.forcetechnology.com. You can also contact Division Manager Hans Falster, tel. (direct) +45 43 26 71 16, e-mail: hfa@force.dk

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