

RAW MATERIALS

WHAT IS AT STAKE?

- ISOVER glass wool is traditionally manufactured with sand, abundant in nature.
- Reducing extraction from quarries helps to protect the biodiversity.

INCREASED USE OF RECYCLED GLASS

- To significantly lower the consumption of sand, the ISOVER glass wool batch contains up to 80% of recycled glass (58% in average).



MANUFACTURING

WHAT IS AT STAKE?

- Producing glass wool consumes energy, emits greenhouse gases and uses high volumes of water.
- Continuously improving the environmental performances of our plants helps to reduce their environmental impacts.

OPTIMIZED MANUFACTURING PROCESSES

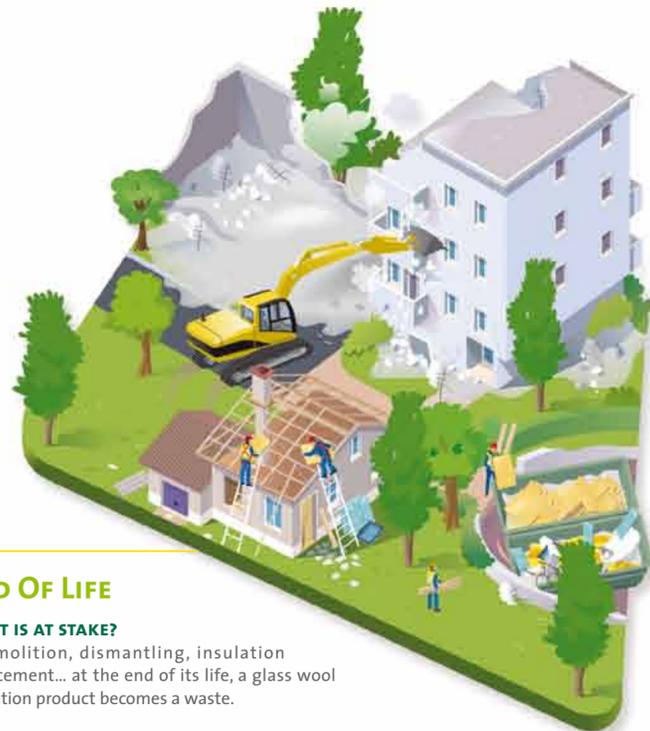
- More than 75% of ISOVER glass wool factories in the world are ISO 14001 certified.

- Recycled glass melts at a lower temperature than primary raw materials; its increased use reduces the energy consumption of the melting furnace and related CO₂ emissions. **Energy consumption and CO₂ emissions per ton of produced glass wool have been reduced by 19% between 1993 and 2010.**
- Closed circuit systems reduce water withdrawal: between 1999 and 2011, fresh water consumption per ton of produced glass wool has been reduced by 30%.
- 75% of our glass wool production waste is recycled (100% in some plants), thus diverted from going to landfill.

ISOVER, sustainable insulation solutions

A life cycle perspective

THE EXAMPLE OF GLASS WOOL



END OF LIFE

WHAT IS AT STAKE?

- Demolition, dismantling, insulation replacement... at the end of its life, a glass wool insulation product becomes a waste.

FOSTERING RECYCLING

- Glass wool insulation products are recyclable: ISOVER develops waste management schemes to properly collect, sort out and process the end-of-life waste to become new glass wool insulation or to manufacture other useful products such as bricks.



USE

WHAT IS AT STAKE?

- Buildings consume more energy and emit more CO₂ than industries or transports.
- Reducing their energy consumption and CO₂ emissions while improving indoor environment and comfort should be a priority.

ENERGY AND CLIMATE SAVERS

- Up to 90% of the energy used for heating or cooling can be saved, with no need for maintenance, no CO₂ emissions and no energy consumption.
- Over its installed life (usually 50 years), a typical ISOVER glass wool insulation product can save up to 300 times the energy consumed and the CO₂ emitted in its production, transport and disposal. The energy and CO₂ balance switches to positive only a few months after installation.



TRANSPORTATION

WHAT IS AT STAKE?

- Transportation includes the distances covered between the manufacturing plant, the distribution outlets and the sites where the glass wool products are installed.
- Transportation inevitably incurs energy consumption and CO₂ emissions.

REDUCED TRANSPORTATION AND STORAGE IMPACTS

- We use the resilient properties of glass wool products to compress them by a factor of up to 10 at the time of packaging and palletizing.
- This patented process improves handling, reduces the need for packaging materials and lowers the environmental impact of transportation.
- Moreover, to reduce transportation impacts, ISOVER plants are located close to our markets.

CONSTRUCTION

WHAT IS AT STAKE?

- Contractors need products and solutions easy to handle and to install, with reduced environmental impacts on the jobsite.

CONTRACTOR FRIENDLY PRODUCTS

- The installation of ISOVER glass wool insulation products does not require heavy tools nor generate a high consumption of additional materials.
- Off-cuts during installation are limited and can be shipped back for recycling.