

Solar Solutions

ISOVER Insulation Solutions
for Thermal Solar Collectors



ISOVER
SAINT-GOBAIN

Introduction

Your partner for high quality products & sustainable insulation solutions

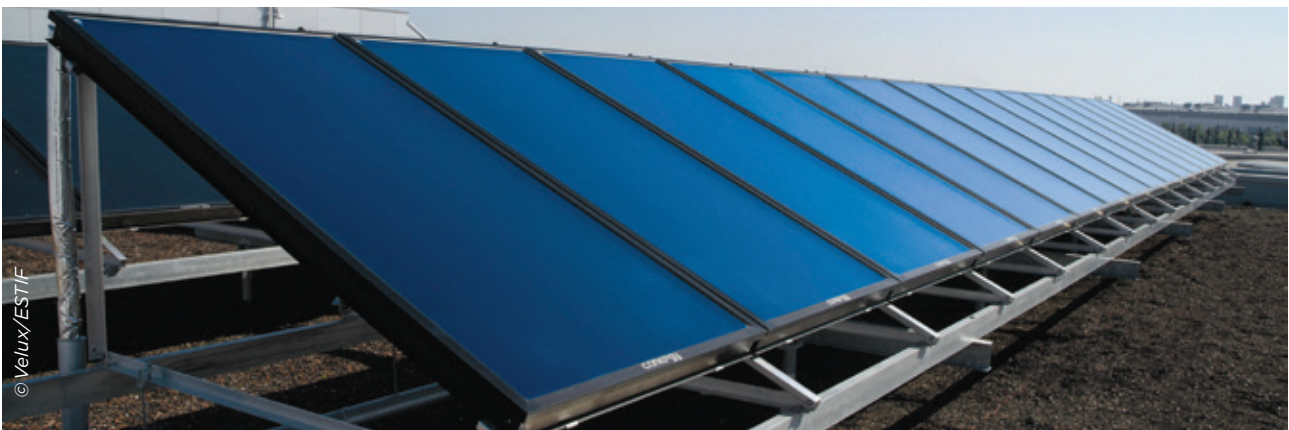
As a result of growing environmental concerns and incentives from governments, there is a strong focus on renewable energy sources. Solar thermal collectors generate hot water and decrease the amount of energy needed for domestic heating.

While solar collectors usage grows, manufacturers request continuous improvements in quality, performance and productivity.

For more than 20 years, ISOVER has been developing a unique range of mineral wool products specifically

designed for Solar applications. ISOVER Solar solutions combine high thermal performance with sustainability and the ability to operate at stagnation temperatures up to 250°C inside the collector.

With numerous customers worldwide, ISOVER understands the production needs of solar collector manufacturers, based on performance, customized products and logistics. ISOVER is a reliable partner of the solar industry thanks to high-quality and safe solutions, such as ULTIMATE EasyRoll, the new standard for high performance.



ISOVER Solar solutions. Thinking insulation for thermal solar collectors



Thermal Efficiency

Excellent thermal insulation.



Best Light Transmittance

ISOVER Solar products are specially designed to avoid any fogging deposit or any condensation on the glazing even with high stagnation temperatures in the collector.

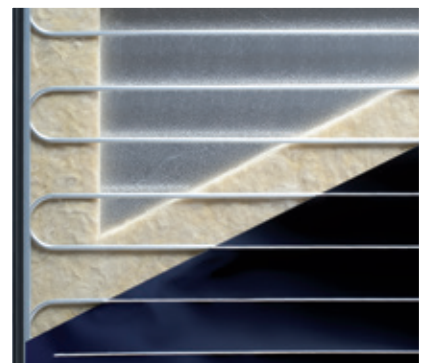


Cost Efficiency

Fast installation and flexible logistics enable total cost saving solutions.

Insulation is needed in solar thermal collectors to save and concentrate heat energy.

By avoiding thermal losses through the rear and the sides of the collector, insulation optimizes the efficiency of the collector, enabling the maximum amount of collected heat to be transferred to the circulating fluid.



Product Compass

Available shapes & facings

ISOVER Solar offers a unique range of tailored solutions. From storage and transportation benefits to simplified installation, our benefits effectively improve the collector efficiency.



Precut EasyRoll



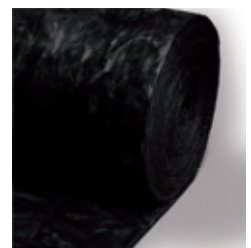
EasyRoll V2 black tissue facing



Unfaced rolls



Unfaced slabs



Black dyed glass wool

Tailored to your needs



Stripes for insulation of sides



Custom cutting

U Solar Stripes 3.5 V2 is an additional frame insulation that improves the efficiency of your collector.



ISOVER Material Range

ISOVER has developed a unique wide range of mineral wool products designed specifically for Solar applications. Based on glass wool, stone wool and ULTIMATE, a unique material exclusively made by ISOVER, our Solar solutions combine high thermal performances with sustainability and the ability to operate at stagnation temperatures, up to 250°C.

Black glass wool

For a better heat penetration inside the collector



Excellent thermal insulation



Cost-effective solutions



No outgassing



Thin solutions



Unique lightweight



Active environmental protection



Stone wool

A material particularly suitable for higher mechanical strength applications



Excellent thermal insulation



Cost-effective solutions



No outgassing



Active environmental protection



Strong mechanical resistance



ULTIMATE

Combined strengths. A unique solution by ISOVER



Excellent thermal insulation



Cost-effective solutions



No outgassing



Thin solutions



Unique lightweight



Active environmental protection



Performance Guide

Our range of mineral wool products is based on ULTIMATE, glass wool and stone wool materials providing outstanding thermal insulation performance with the high temperature stability required for thermal solar collectors.

Choose the product that best fits your needs

Application	No outgassing	Limited dust	Low weight	Mechanical strength in compression & bending	Flexible logistics (storage/transport)	High temperature resistance
ULTIMATE	+++	+++	+++	++	+++	+++
Glass wool	+++	++	+++	++	+++	++
Stone wool	+++	+	+	+++	+	+++

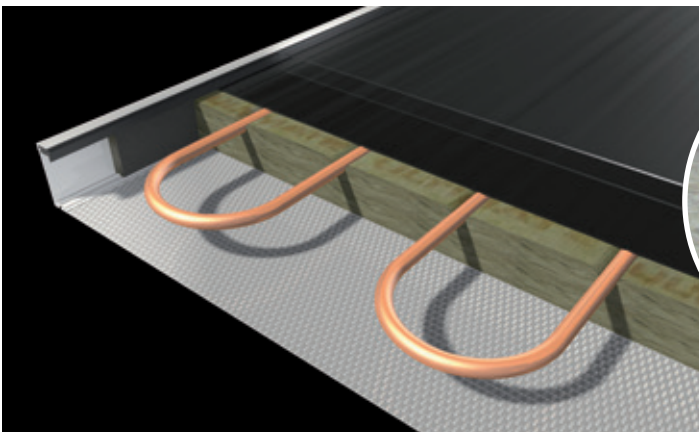


Thermal insulation – For efficient solar energy generation

With ISOVER ULTIMATE or glass wool products it is possible to achieve the same thermal insulation values at just about 50% of the weight of traditional stonewool material – a significant benefit for system designers and installers.

Efficiency Optimization

Moreover, the natural flexibility and resilience of ULTIMATE and glass wool fit perfectly to the absorber shapes by enveloping the tubes. Avoiding any space gap, the thermal performance is even more efficient compared to traditional stone wool products.



The ULTIMATE and glass wool insulation products fit the absorber perfectly

Performance Guide



Thin Solar Collector Solutions

Product	Density	Lambda value mW/(m•K) at 10°C	Thickness to reach thermal resistance R=1
U Solar 1.5	15 kg/m ³	37	37 mm
U Solar 2.0	20 kg/m ³	34	34 mm
U Solar 2.5	25 kg/m ³	33	33 mm

↓ -10%



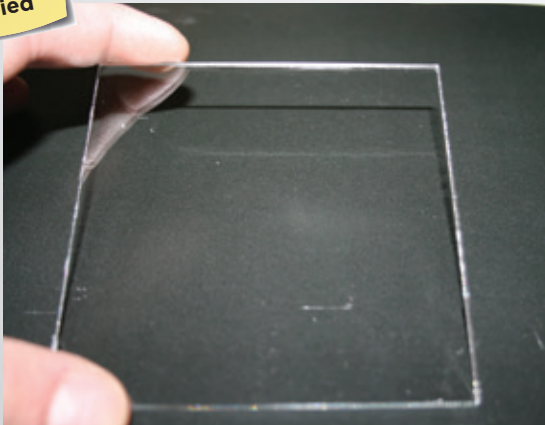
Best light transmittance, without fogging

Whilst the service temperature of a solar collector can go up to 150°C, stagnation (slow circulation of the calorific fluid due to low hot water consumption or system failure) can raise the temperature inside the collector up to 250°C.

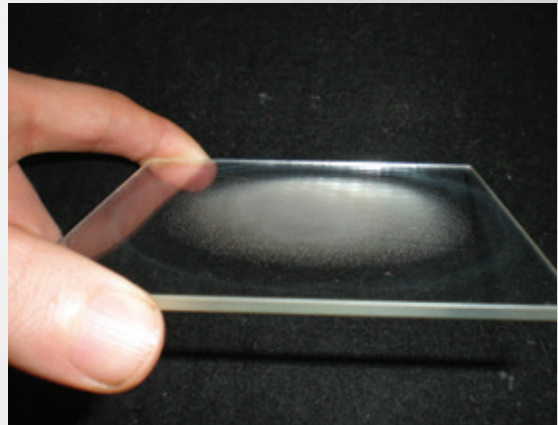
ISOVER Solar products are specially designed to avoid any fogging deposit or any condensation on the glazing even at 250°C and over a period of 150 hours.



No Fogging



With Fogging



Environment, Health & Safety



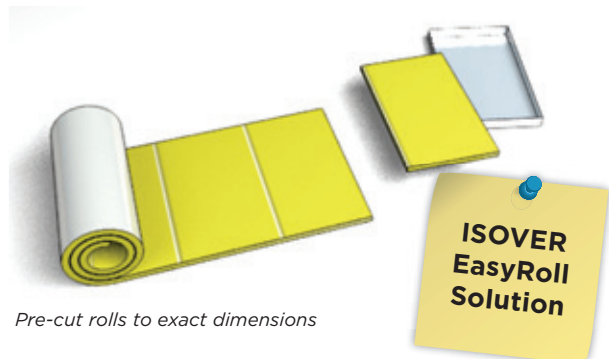
Easy handling, user-friendly insulation with ISOVER Solar



Excellent logistics efficiency and flexibility by high compressed products



Reduction of CO₂ emissions thanks to space savings in the truck



Pre-cut rolls to exact dimensions



Performance Logistics

ULTIMATE & glass wool compression



All ISOVER mineral wools are bio soluble and 100% recyclable, made entirely of natural raw materials. Our solar glass wool products are elaborated with up to 80% recycled material.

Performing LCA on its glass wool products since 1994, ISOVER is your experienced partner for eco-design solutions.



ISOVER mineral wools are non-carcinogenic in accordance with EU criteria. They are certified by the EUCEB and RAL quality labels "Products made of mineral wool".



LCA (Life Cycle Assessment) =
All steps of a product's life cycle, from production / extraction until removal / reuse.



From Cradle to Grave



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