



ENERGY SYSTEMS

Solarico®

High Quality

UniPlate

Solar Collectors



ISO 9001
LL-C (Certification)



keep the sun in mind



Solar energy has by far the highest theoretical potential of the earth's renewable energy sources. It is the most abundant energy resource on Earth. Solar energy strikes the Earth continuously with more than 10,000 times the world's total energy use.

While you read this quote, our sun have already produced enough energy to sustain Earth's needs for few millions of years. Just 1 second of the Sun's energy output would power the world for 500,000 years.



Solarico Solar Thermal Systems

Easy way to use the power of the sun

■ The systems of renewable energy

Almost each building have enough available space to be used for solar thermal collectors that will provide its required thermal energy. Every industrial process that requires thermal energy can be supported by solar thermal energy.

Solarico's systems are developed over the years of experience and practical skills, produced with most up to date technologies.

■ Improved heat efficiency with UniPlate & UniQube

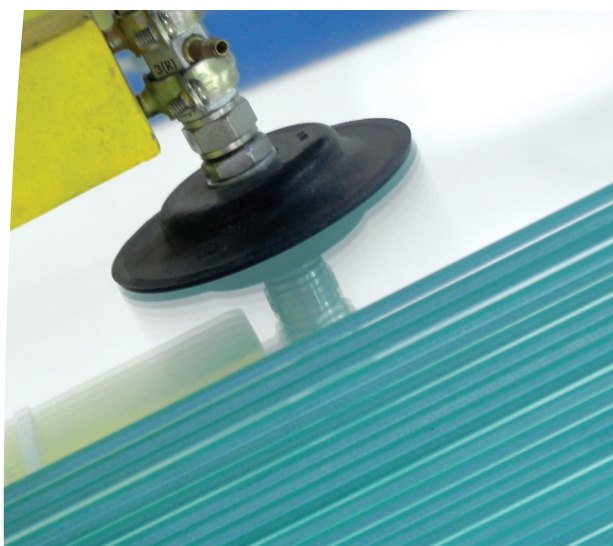
With impressive full plate solar collector and new generation of storage tank the result is high efficiency absorbing, and high efficiency storing of solar thermal power.

This efficient components are perfect to support heating systems, to improve industrial applications, to supply our home with hot water.

Solarico's team offers online technical support for each design of solar systems, project management consulting and service.

■ Present-day responsibility to our next generations

The Renewable Energy Directive establishes an overall policy for the production and promotion of energy from renewable sources in the EU. It requires the EU to fulfil at least 20% of its total energy needs with renewables by 2020 – to be achieved through the attainment of individual national targets.



Why Solarico

- High quality products with very acceptable value for the investment
- Best of class products with 10 years warranty
- Compliance with all international standards
- Commitment to deliver environmentally friendly products
- Specialized designed solutions for constructors, organizations and industry projects
- Products that are manufactured on site and quality tested

Solarico offers excellent solar systems providing the best performances from many comparative tests and developments. Products have Solar Key-mark certificate and tested & certified by reputable laboratories as SPF Institute and certification bodies like DIN CERTCO. Solarico is a reliable solar collector manufacturer as well for OEM companies looking for adding the best solar thermal solution to their product range with their own brand, or using only our absorbers to their collectors.

With the most up to date technology, and with our power of innovation and solar expertise, we produce and sell products which are following the highest standards in industrial production of thermal solar collectors.

Looking to the future, we found that such skills and experience could be put to the efficient manufacture of new products in the renewable energy market. We use our long time experience for developing our own products that best meet the needs of our customers.

Solarico renewables, solar thermal package the essentials of solar systems for the ultimate solution

■ Environmental projects

Solarico combines perfect solar sets. With UniPlate collectors and UniQube storage tanks you can easily set up the desired system.

From simple solar water heater with backup electric water heater to complex combined heating systems with solar support and hygienic heated water.

Our high quality components ensure the thermal systems are long service life, reliable, and easy for installation.

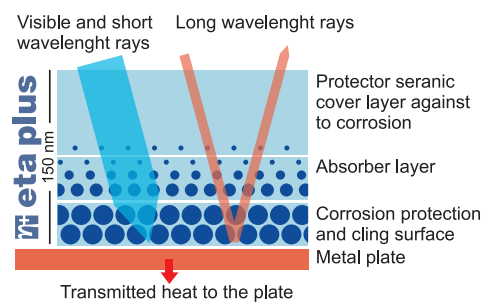
The owners of Solarico solar thermal packages will take advantage of its efficiency in using the sun power and can enjoy the comfort of long life system.



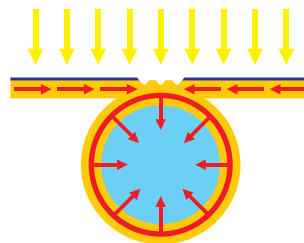
Solarico UniPlate collectors

full plate selective coated high tech collectors

- Full plate high performance absorber
- High transmission tempered safety glass
- Optimal insulation
- Aluminium casing
- Easy to install
- 10 years guarantee
- Stability and reliability



The latest technology of selective coated absorbers that have been used for the UniPlate 2.5 SB series solar collectors transfer the sun radiation heat in maximum level and minimize the reflection loss which decrease the efficiency.



Ultrasonic welding method which is the one of the most modern and latest technologies has been used to connect the selective coated absorber surface to the riser pipes.

■ Advanced automation technology

Solarico developed specially designed robot for welding the UniPlate's full plate absorber.

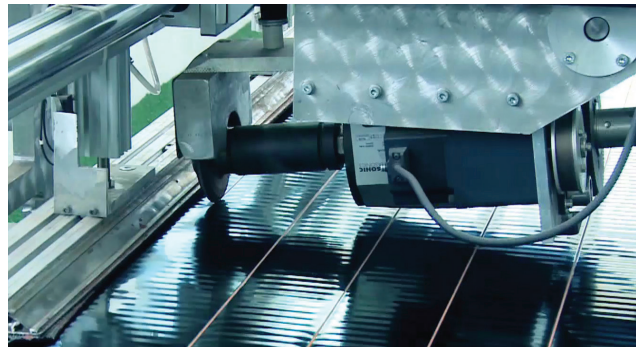
Process of welding absorber in one piece and its automation guarantees optimal productivity.

■ Impressive energy absorption, stability and reliability

UniPlate's absorber is made of corrugated full plate copper foil, with selective surface coating and ultrasonically welded on 12 copper tubes. Full plate absorbers are resistant to mechanical distortions and are most effective in the class of flat panels.

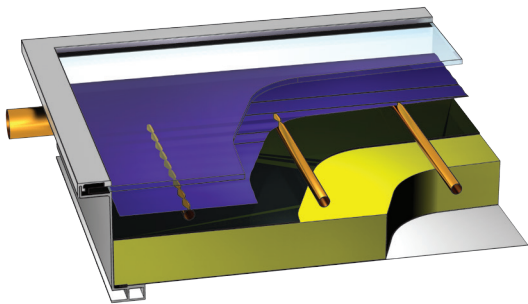
Copper to copper ultrasonic welding produce high thermal transmission joints that are chemically and physically stable for decades.

4 mm thickness tempered safety solar glass makes UniPlate resistant to tough outer impacts and its low iron structure provides minimum reflection of the sun rays.



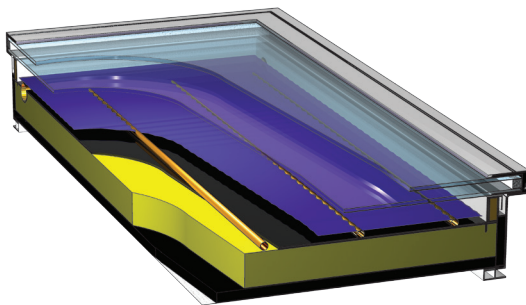
The right model for each application

The selective solar collectors from the series UniPlate 2.5 SB, are made in two variants:



Model - UniPlate 2.5 SB

The base version has single glazed tempered solar glass, used in applications such as domestic hot water (DHW), industrial hot water (IHW), swimming pools, etc.

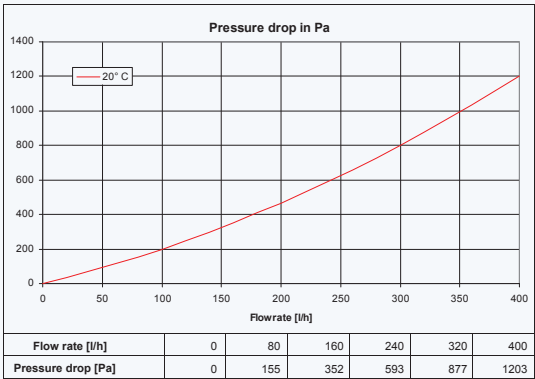


Model - UniPlate 2.5 SBT

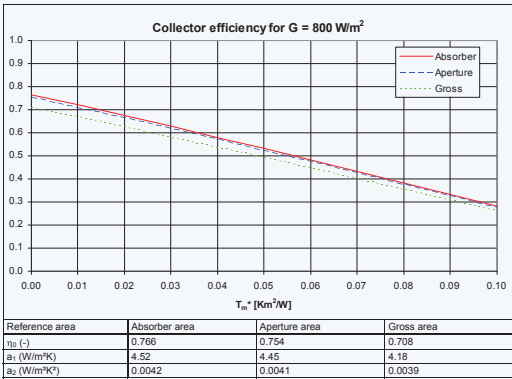
Double glazed version has two tempered solar glass with 9mm space gap filled up with argon and reinforced insulation.

This type has better efficiency and usually is used as supplement in the central heating systems for production of domestic hot water especially in regions with low outside temperatures.

Pressure drop



Collector efficiency



UniPlate 2.5 SB collectors

Stable characteristics over the years are result of copper absorber, quality safe glass and other high quality materials used in Solarico UniPlate. This means a long service life collector, most cost-effective solution, ecological, produced with low power consumption and guaranteed use for decades.

- 1

Anodised aluminum batten
- 2

Hecker T-Safe Solarfloat tempered solar glass
- 3

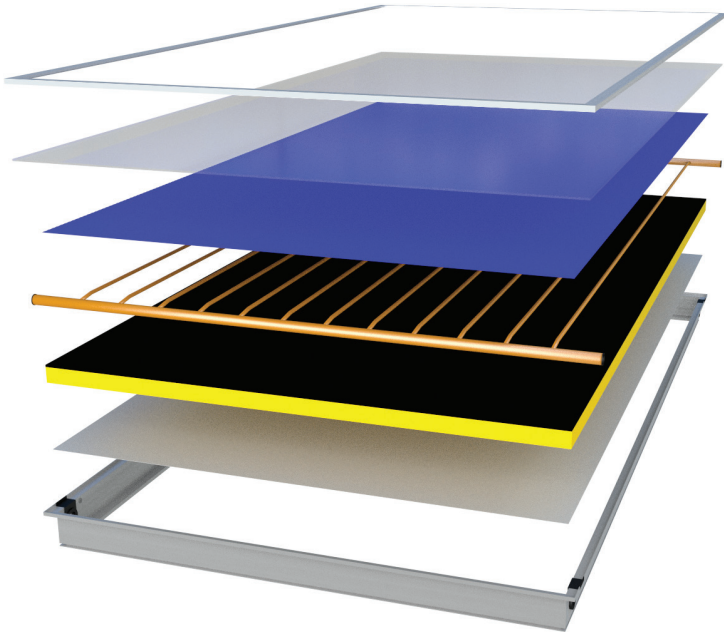
Alanod - Eta Plus Cu sheet with selective surface coating
- 4

Ultrasonic - welded copper absorbers
- 5

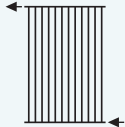
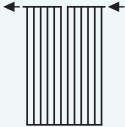


Mineral glass wool slab with 50 kg/m³ density, covered by layer of black fiber glass
- 6

Embossed back side Al - metal sheet
- 7

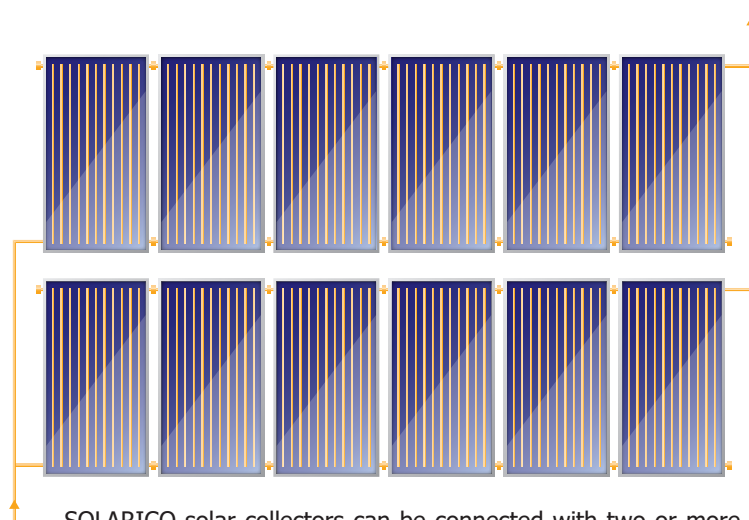
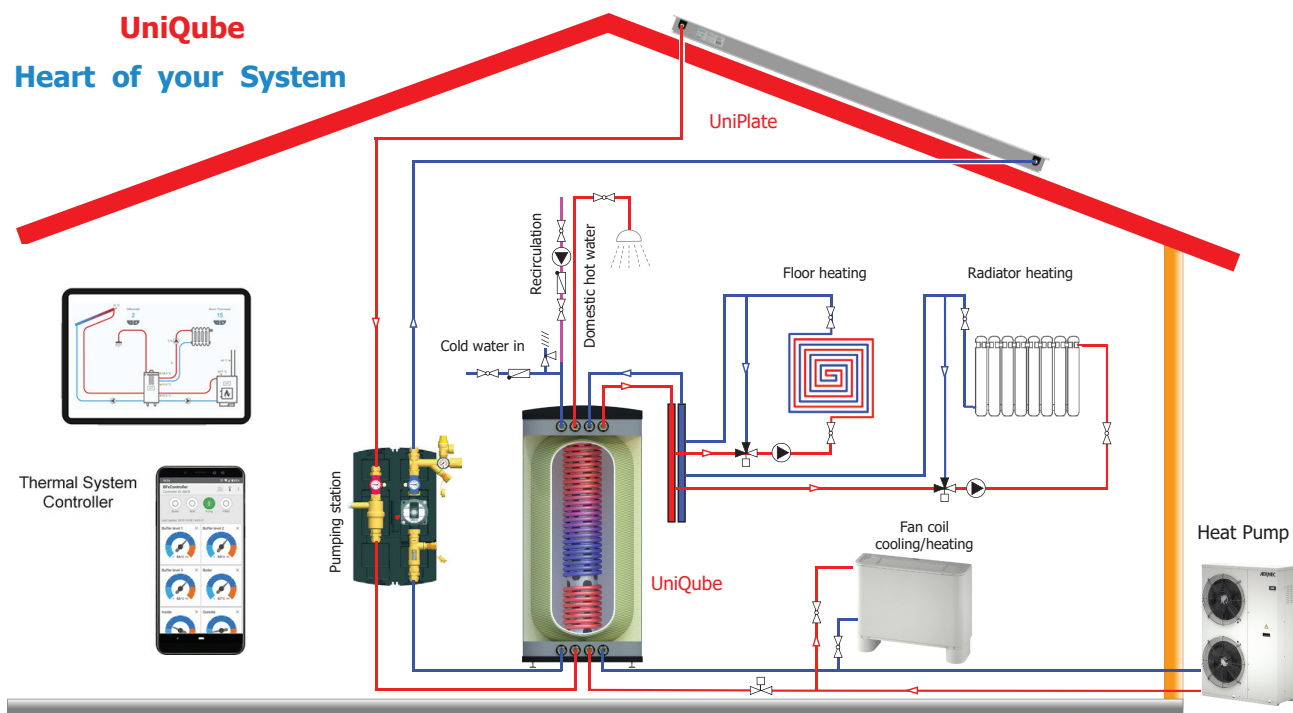
Strong aluminum profile



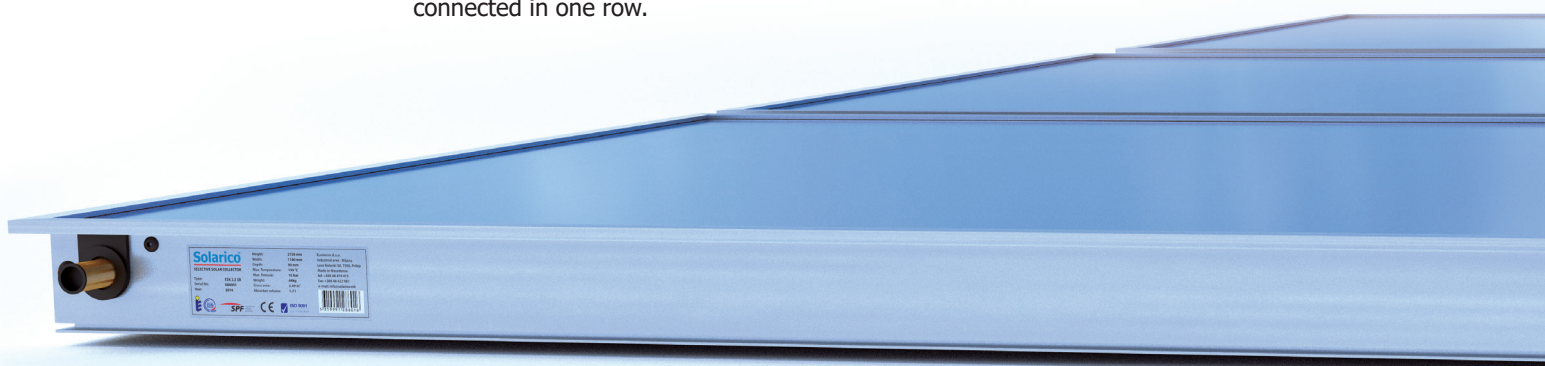
Solarico’s systems are developed over the years of experience and practical skills, produced with most up to date technologies.

Model		UniPlate 2.5 SB	UniPlate 2.1 SB	UniPlate 2.5 SB-U	UniPlate 2.1 SB-U	UniPlate 2.5 SB H	UniPlate 2.1 SB H	UniPlate 2.5 SB HV	UniPlate 2.1 SB HV
Gross area / Light entering area	(m²)	2,49 / 2,35	2,1 / 1,95	2,49 / 2,35	2,1 / 1,95	2,49 / 2,35	2,1 / 1,95	2,49 / 2,35	2,1 / 1,95
Absorber surface (corrugate)	(m²)	2,32	1,92	2,32	1,92	2,32	1,92	2,32	1,92
Absorber material		copper sheet with “Eta plus” selective surface coating		copper sheet with “Eta plus” selective surface coating		copper sheet with “Eta plus” selective surface coating		copper sheet with “Eta plus” selective surface coating	
Absorption coefficient (Eta plus)	(%)	95 ± 2	95 ± 2	95 ± 2	95 ± 2	95 ± 2	95 ± 2	95 ± 2	95 ± 2
Emission coefficient (Eta plus)	(%)	5 ± 2	5 ± 2	5 ± 2	5 ± 2	5 ± 2	5 ± 2	5 ± 2	5 ± 2
Cu Pipe register frame	(mm)	Φ 8 x 0,5	Φ 8 x 0,5	Φ 8 x 0,5	Φ 8 x 0,5	Φ 8 x 0,5	Φ 8 x 0,5	Φ 8 x 0,5	Φ 8 x 0,5
Collective Cu pipe frame	(mm)	Φ 22 x 0,8	Φ 22 x 0,8	Φ 22 x 0,8	Φ 22 x 0,8	Φ 22 x 0,8	Φ 22 x 0,8	Φ 22 x 0,8	Φ 22 x 0,8
Absorber volume	(l)	1,7	1,3	1,7	1,3	1,7	1,3	1,7	1,3
Transparent front cover		4mm tempered solar glass		4mm tempered solar glass		4mm tempered solar glass		4mm tempered solar glass	
Solar light transmission through glass	(%)	92 ± 2	92 ± 2	92 ± 2	92 ± 2	92 ± 2	92 ± 2	92 ± 2	92 ± 2
Solar energy transmission through glass	(%)	91 ± 2	91 ± 2	91 ± 2	91 ± 2	91 ± 2	91 ± 2	91 ± 2	91 ± 2
Number of connections		4	4	2	2	4	4	4	4
Connection diameter	(R)	Φ 22	Φ 22	Φ 22	Φ 22	Φ 22	Φ 22	Φ 22	Φ 22
Max. working / test pressure	(bar)	10 / 14		10 / 14		10 / 14		10 / 14	
Stagnation temperature	(°C)	199		199		199		199	
Insulation - back side		40 mm glass wool (50kg/m³)		40 mm glass wool (50kg/m³)		40 mm glass wool (50kg/m³)		40 mm glass wool (50kg/m³)	
Insulation - on the sides		-		-		-		-	
Back area		0.5 mm embossed aluminium sheet		0.5 mm embossed aluminium sheet		0.5 mm embossed aluminium sheet		0.5 mm embossed aluminium sheet	
Collector construction		aluminium profil AlMgSi 0,5 F22		aluminium profil AlMgSi 0,5 F22		aluminium profile AlMgSi 0,5 F22		aluminium profile AlMgSi 0,5 F22	
Welding method		ultrasonic		ultrasonic		ultrasonic		ultrasonic	
Height/ Width/Depth	(mm)	2150 / 1160 / 90	2150 / 976 / 90	2150 / 1160 / 90	2150 / 976 / 90	2150 / 1160 / 90	2150 / 976 / 90	2150 / 1160 / 90	2150 / 976 / 90
Weight	(kg)	45	37	45	37	45	37	45	37
Absorber type									

UniPlate - combination of choices



SOLARICO solar collectors can be connected with two or more parallel collectors fields, using TICHELMAN SYSTEM. When connecting collectors in series, use the compensation joints on every second collectors. Up to 6 collectors can be connected in one row.

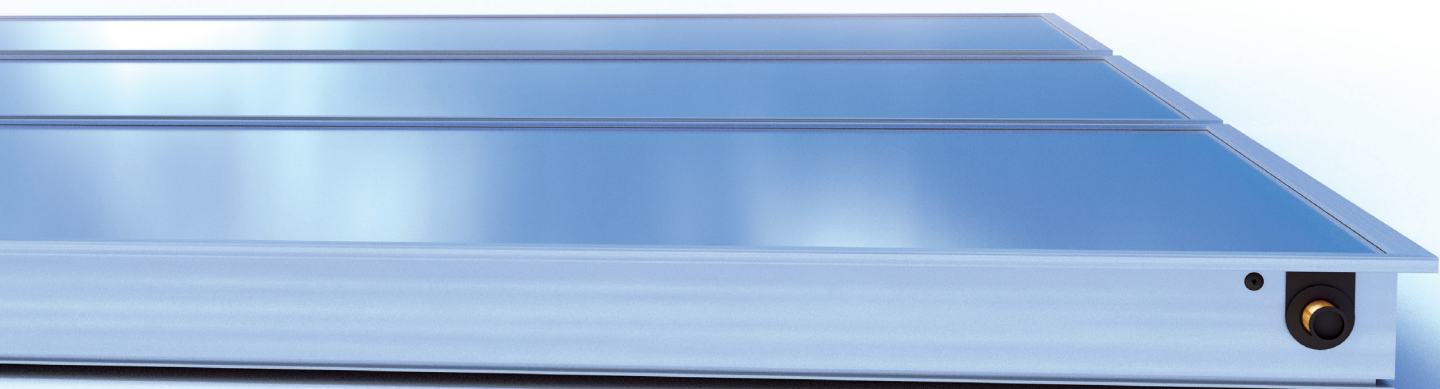


UniPlate - highlights

- copper absorber with Eta plus selective foil 0.2 mm, corrugated
- low iron tempered glass, 4 mm thick
- dimensions 2149 x 1159 x 90 mm



Dedication of our expert team have already contribute implementation of quality standards ISO 9001:2008 and certainly SOLAR KEYMARK issued by DIN CERTCO, tested in SPF Institute for Solar Technology.



*UniQube
Heart of your system*



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