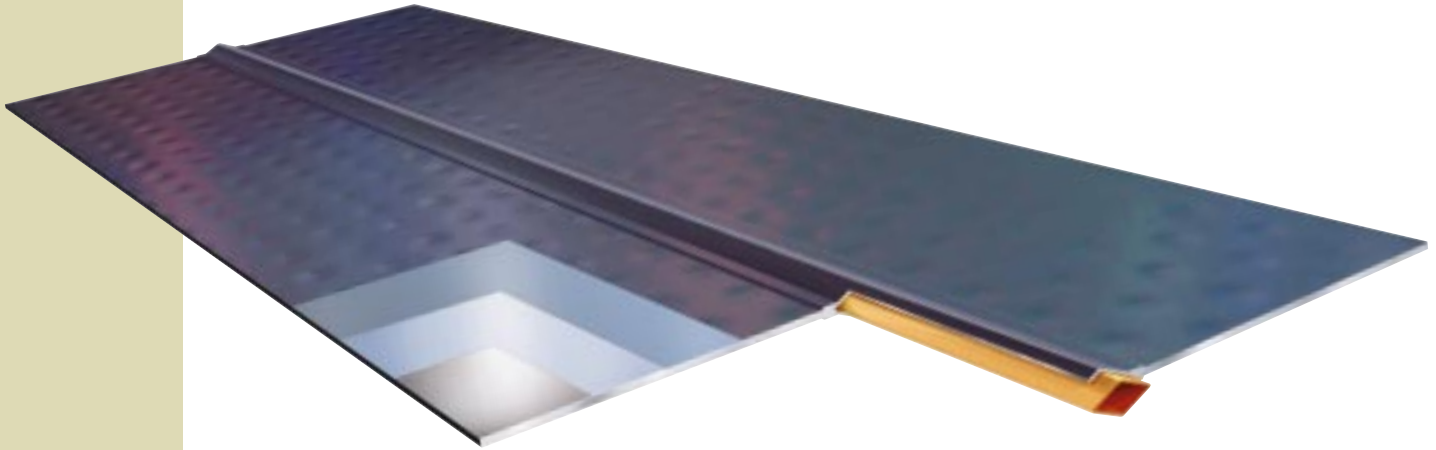


# Sunstrip Absorber strip for solar collectors



Sunstrip develops, produces and supplies absorber strip for solar collector manufacturers all over the world, and primarily in Europe. Overall efficiency is of the very highest class. More than 20 years as a business partner in the solar collector industry have made Sunstrip's absorber strip the most common one on the market, and an extensively tried and used product.

## High performance...

Sunstrip's high performance results from a combination of a highly specialised surface, good fin efficiency and excellent heat-transfer properties. The heat-transfer properties are in turn the result of a unique construction. The absorber strip is made of aluminium with a metallurgically joined copper tube. The tube's rhombic shape allows a turbulent flow in the tube, which increases the heat transfer to the heating medium. The rhombic shape also increases the heat-transferring area. The negligible volume of liquid in the tube reduces any dynamic loss and increases the solar collector's energy effect. These qualities are especially important in large solar collectors, for which Sunstrip's absorber strips have proven to be particularly suitable.

The Sunstrip Protect protective layer has further improved the strip's long-term properties.

## ...and environmentally friendly

The combination of copper and aluminium gives the strip a low weight and high rigidity. Analyses indicate low life-cycle costs (LCA analyses) and entire products can be returned to us for recycling.

The coating technique – sputtering – does not generate any residual products and the entire production process has no environmental impact.



## Long life span

The Swedish Testing and Research Institute has carried out a number of tests on Sunstrip's sputtered absorbers (ref. 96M32494). The tests were conducted in accordance with the requirements and methods stipulated by IEA Task X (International Energy Agency).

The tests included checking the surface's durability against condensation, sulphur oxide and high temperatures. Sunstrip's test results were approved and the values correspond to a product life span of over 25 years.



## Areas of application for Sunstrip strips

- flat solar collectors
  - large collectors up to 14 m<sup>2</sup>
  - domestic collectors 1 – 3 m<sup>2</sup>
- CPC solar collectors
- vacuum tubes

The strip can also be surface coated on both sides.

## Technical facts

Width:	143 mm, 122 mm, 70 mm
Length:	600 – 7000 mm
Solar absorption:	96 % ±2
Thermal emission:	7 % ±2
Surface coating method:	Vacuum magnetron sputtering, single or double-sided

Fin efficiency level F, Fa:

Strip width (mm)	143	122	70
Fin efficiency level F	0.968	0.977	0.994
Fin efficiency level w. tube, Fa	0.971	0.980	0.995

Collector efficiency factor F<sup>o</sup>:

Strip width (mm)	143	122	70
F <sup>o</sup> 20 L/h	0.932	0.945	0.974
F <sup>o</sup> 60 L/h	0.965	0.974	0.992
F <sup>o</sup> 108 L/h	0.974	0.992	0.993

Assuming: Heating medium temperature T=70°C, water.  
Loss factor U=3 W/m<sup>2</sup>K.

## Other products from Sunstrip

- **Lightweight absorbers.** Can be customised with both serial and parallel flow, system-ready and pressure-tested.

## In black and white

We are certified to ISO for quality and environmental management, and were awarded the Austrian state “Umweltzeichen” ecological award in 1995.



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