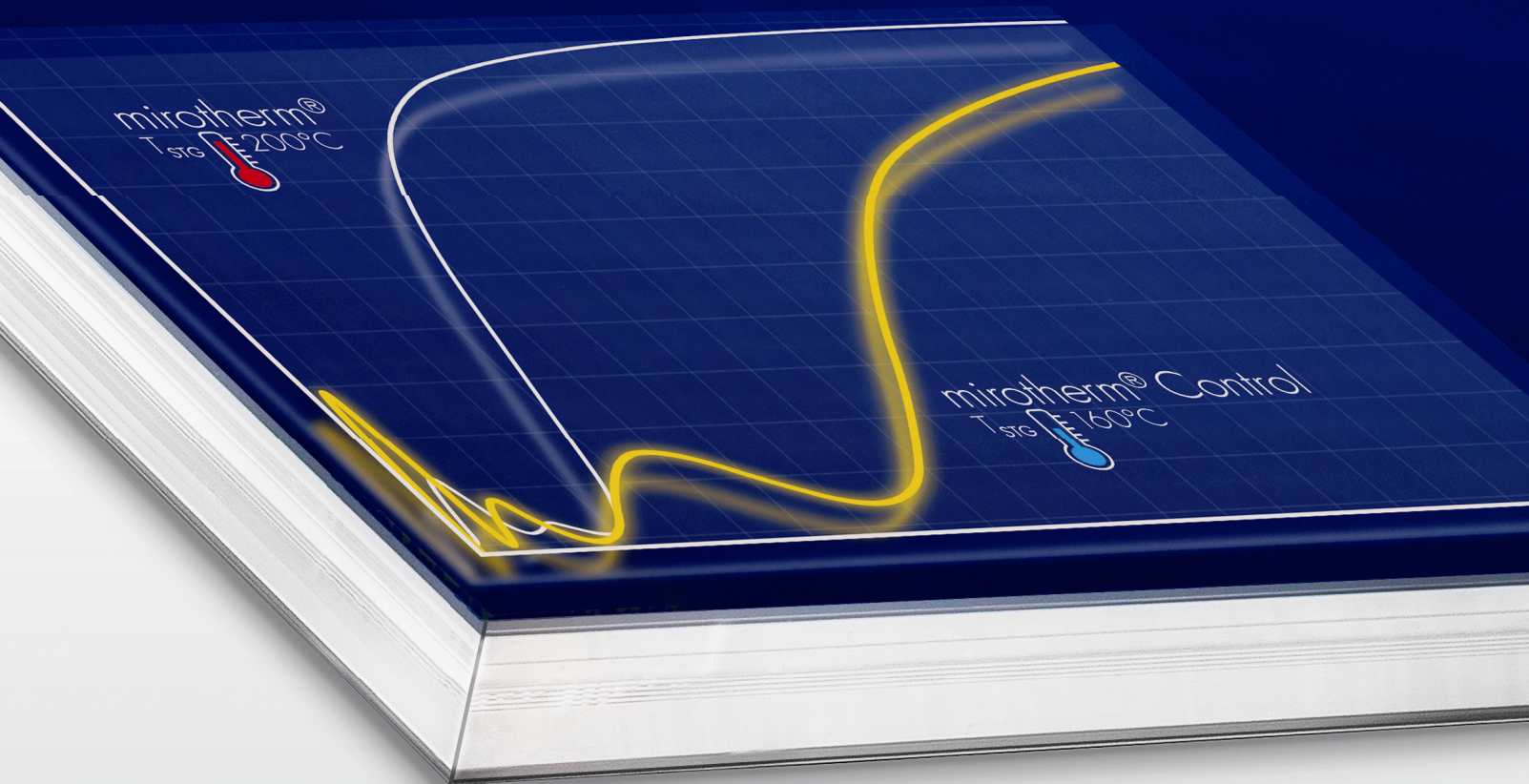


mirotherm® Control
CREATE THE DIFFERENCE



SOLAR

The new generation
of solar selective coatings



The perfect solution for solar thermal power applications
that also tackles overheating

mirotherm® Control is the new generation of selective surfaces for solar thermal applications, which adds the benefit of built-in protection against overheating. It achieves a solar absorption rate of 96% and has temperature-dependent emission losses. The emissivity increases as the temperature rises, thus the Stagnation Temperature of flat collectors is reduced by approximately 40°C.

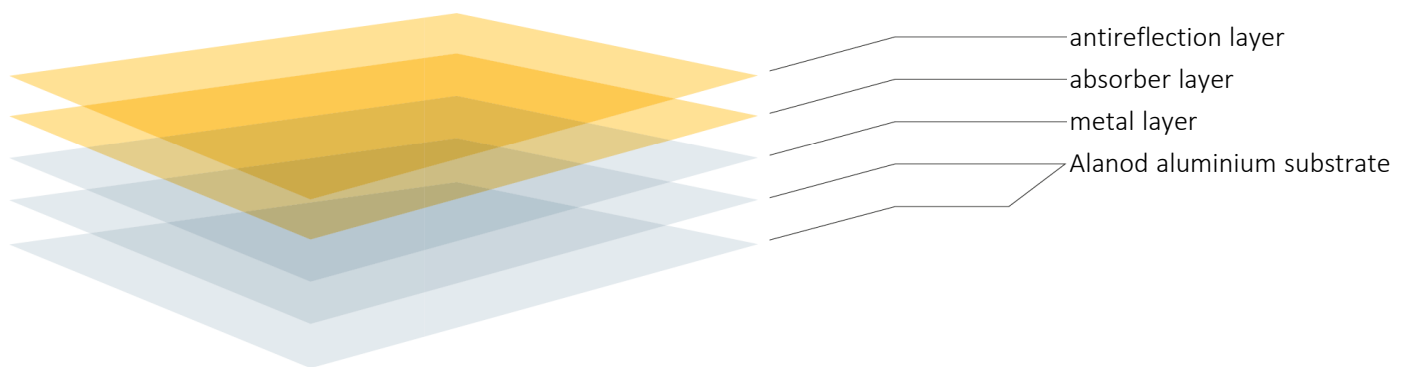
mirotherm® Control ensures maximum efficiency and operational reliability even at high ambient temperatures.

mirotherm® Control makes a good thing even better

mirotherm® Control has been developed further on the basis of **mirotherm®**, the well-established and widespread coating used in the solar thermal market. In addition to all the advantages of **mirotherm®**, the new product offers a remarkable reduction in the stagnation temperature of about 40°C (flat plate collectors). Properties such as very high energy absorption (similar to **mirotherm®**) and very high corrosion resistance against moisture are characteristics of **mirotherm® Control**.

The new product consists of four optically active layers deposited on a specially treated aluminium substrate. The coating is applied using our PVD (Physical Vapour Deposition) technology in a coil-to-coil process.

Layer structure of mirotherm® Control



Advantages for the collector manufacturer

- Process and Handling of the sheets/coils identical to **mirotherm**
- No need to renew Solar Keymark certification when switching to **mirotherm® Control**
- Significant reduction / elimination of fogging problems resulting from collector insulation
- Less stress on collector components such as welding dots, insulation, plastic parts and the collector frame, increase of reliability of the system
- Low deformation of the absorber under stagnation. Prevents mechanical damage of the coating resulting from contact with the glass
- Qualified according to ISO/EN 22975-3 (Task X)

Advantages for the end user

- Reduced liquid loss due to evaporation in water / glycol circuits under stagnation and consequently stable performance over many years
- Increase of the lifetime of glycol, thus no frost damage and no corrosion problems
- No need to cover the collector during the “sunny”, hot periods of the year
- Increase of the lifetime of the solar unit due to less strain on all parts
- Based on our proven **mirotherm®** product, successful for more than 15 years in the global market

Alanod GmbH & Co. KG Egerstraße 12,
58256 Ennepetal, Germany
Tel. +49 2333 986-500, Fax +49 2333 986-555
info@alanod.de, www.alanod.com

