Solar Thermal
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Solar Domestic Hot Water Heating ”powered by SCHOTT“

The basic conditions for the use of solar energy for hot water heating in private households are favorable due to the fact that the hot water needs for a household are almost constant throughout the year. This means that there is a greater harmony between the energy needs and the solar energy conditions than in the use for space heating. In the summer, the entire hot water needs can be covered by a properly dimensioned solar thermal system with SCHOTT ETC16 evacuated tube collectors. With just four modules – depending on the region and the direction of the roof surfaces – it is possible to cover 60 % of the annual hot water needs of a 4-person household using solar energy. The conventional heating system can be completely shut down in this case. That is especially advantageous due to the fact that during this period it only functions with a low degree of utilization because of the lack of demand for heating. The sun’s energy can be even more efficiently put to use if, instead of the conventional equipment, washing machines and dishwashers with hot water connections are used.

Mode of operation (water/glycol mixture)

When the solar radiation is sufficient according to a temperature comparison between the collectors and the domestic hot water tank, the solar loop (generally a water/glycol mixture) is circulated by a pump. The heat absorbed by the collector is transferred to the colder process water in the storage tank through a heat exchanger.