

Keeping the Heat On (and keeping it in).

Skin loses heat up to 30 times faster in water than in air and a few minutes swim will cool your whole body. As we swelter through the muggy heat of August, a dip in the sun-warmed pool is a sure-fire way to cool off, with the added benefits of taking the weight off our aching joints and giving us some exercise. Yet, just a few weeks later, 90% or more of the pools in Spain will be winterised until the following June, or simply left to the lime-scale and algae (a really *bad* idea!), because they will be too cold to swim in. There are some hardy Russians who, daily, smash through the ice of frozen rivers and bathe in sub-zero temperatures, but I don't meet many here in Spain. Most of us just accept that our pools will be comfortably swim-able for only 4 months of the year and the rest of the time are simply expensive holes in the ground.

Heating a pool makes good financial sense when you think about it. A pool that cost you, say, 20,000 Euros, which is used for 4 months of the year for 10 years will have cost 500 Euros for each month you can swim over that period, plus maintenance and chemicals. A further 6000 Euros spent on a heat-pump and pool-cover will allow you to swim 12 months of the year and reduce your swimming costs. Add in the extra electricity to heat the water for 8 months annually (40-50 per month during the colder months) and the overall cost-per-month is more like 250 Euros. You will be able to enjoy your swimming pool all year long.

Pool heat-pumps work on the same principles as a refrigerator - heat is taken from one place and 'pumped' elsewhere. A fridge takes heat from inside itself and radiates it into the atmosphere. A pool heat-pump heat takes ambient heat from the outside air and puts it into your pool-water via a heat exchanger, similar in design to a car radiator. Even on the coldest, rainiest day a heat-pump will heat your pool economically.

Why do you also need a pool-cover? Heat is lost from a pool in a variety of ways. Some radiates away via the surface, some is conducted away through the sides and bottom and some warm water is lost during a filter backwash (then you top-up with cold water from the mains). However, over 90% of heat lost from a pool is via evaporation of the pool-water. Do you remember British Thermal Units? One BTU is the amount of heat needed to heat one pound of water by one degree fahrenheit. However, when water is evaporated the figures change dramatically. Evaporation of one pound of water requires 1048 BTU's, all of which comes from your pool-water, thus making it cooler. Water lost to evaporation is replaced by that cold mains-water. (How often did you need to top-up this year?)

Thermal covers work with or without a pool-heater and will warm a pool up earlier in the season and keep it warm long after the non-covered pools of your envious friends have been put to bed for the winter. Covers come in many varieties and range from electric roller covers (95% efficient, several thousand Euros and often requiring major building works), through floating bubble-covers (90% efficient, several hundred Euros plus a storage roller) to the ultra-economic monthly-use Tropical Fish Liquid Pool Cover (75% efficient, but cheap as chips @ 29 Euros per month). Tropical Fish works by producing an undetectable layer, just one molecule thick, over the surface of the pool, reducing evaporation and thus saving heat.

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