

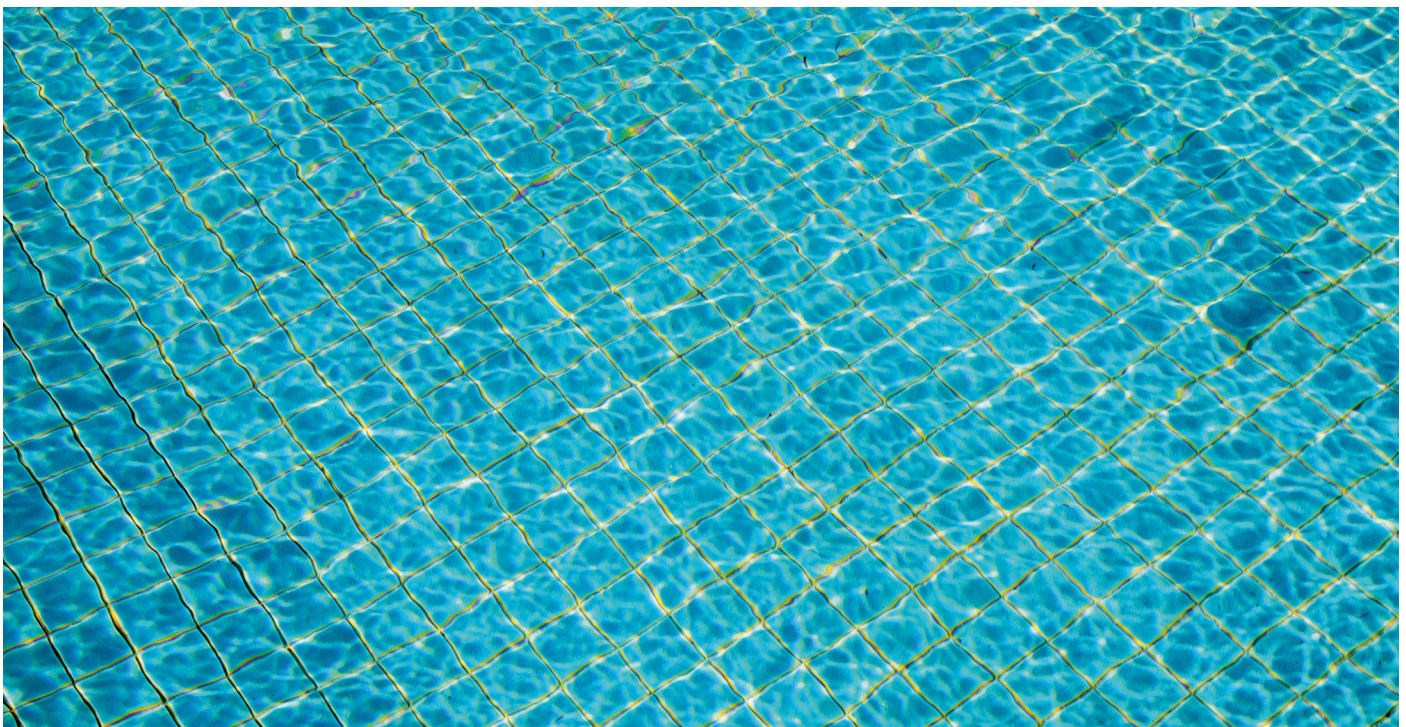


Warm and algae-free

► Enhanced, energy-efficient swimming pool covers

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The growth of algae is a constant problem for swimming pool owners, while heating a pool can represent a huge expense. A project by Surrey's Advanced Technology Institute (ATI) has succeeded in addressing both problems.



During a previous Knowledge Transfer Project (KTP) with Plastipack Ltd, specialist manufacturer of swimming pool and water storage cover materials, a new premium pool cover material was developed which enabled maximum water heating from solar radiation while inhibiting algae growth.

The IAA funding enabled the team to show that an enhanced energy-saving product could be achieved by applying materials science to engineer the required optical properties,

significantly improving the thermal insulation. The ATI was able to draw on its expertise as an internationally recognised leader in the field of photonics, and provide state-of-the-art facilities including its optical characterisation suite, chemical preparation laboratory and electron microscopy facilities.

The project demonstrated proof-of-concept and tested a number of potential additives to low-density polyethylene for their optical and thermal insulation properties, paving the way

for a manufacturable solution in the future. It cemented the relationship between Plastipack and the ATI at Surrey and has led to a further KTP, enabling Plastipack to capitalise upon the ATI's expertise in the ways that light interacts with matter. Commercialisation of the product will enable Plastipack to move further into the profitable high-performance market and reinforce its market-leading position.