

Technology landscape

Technologies for making skin-adherent biopolymer films

Client overview

A consumer goods company was interested in different technical approaches for making skin-adherent films. They wanted to learn how films adhere to the skin and the functional benefits that result. Skin-adherent films are used in a range of industries including in personal care, medical and pharmaceutical products. They are often used in skincare products, wound dressings and topical drug delivery systems. They include extruded, physical polymer films and film-forming, liquid polymers that are applied to skin as a formulated product. The client was particularly interested in films made from biopolymers and biodegradable polymers and they asked Strategic Allies Ltd (SAL) for a technology landscape to help inform their product development activities.



The search

SAL started with a product landscape to illustrate the breadth of products in the personal care and medical industries that employ skin-adherent films. The client then prioritised specific technologies, product types and classes of polymer for further investigation, tasking SAL to find answers to specific technical questions they had.

SAL used both desk-based research and expert interviews during their research, exploring scientific literature, patents and trade press articles to understand the different methods for generating skin-adherent films and their resultant functional properties. SAL also engaged their partner network to find polymer chemists with expertise in film-forming polymers, using the interviews to validate their research and extend their findings. SAL synthesised the technology landscape using both secondary and primary sources of information. The report contained summaries of SAL's findings, including polymer properties and how they influence the functionality of films, as well as recommendations to the client of next steps.

Outcome

SAL profiled 72 skin-adherent, film products for the client – from the personal care and medical industries.

The client prioritised **2 film manufacturing technologies, 2 types of product and 8 categories of bio-sourced or biodegradable polymer** for more detailed review during the technology landscape.

“...Very helpful, now we have a broad overview of what is feasible and what is not... can think of so many product ideas... good foundation to discuss next steps internally”