Toronto-based technology company SunSoul launched its first apparel range in the summer of 2007, but the clothes, which provide the wearers with sun protection and skin treatment, have proved difficult to make and the technology has been slower to make a breakthrough than many in the industry expected to make a breakthrough. But the perseverance of Taiwanese textile manufacturing partner Inprotex could be the catalyst for success at last.

Textiles for skin treatment

Perhaps it's because its Canadian founders (who describe themselves, matter-of-factly, not pompously, as "globally recognised scientists and dermatology specialists") have important day-jobs, but SunSoul has been slow to make an impression on the technical textile market. This technology idea, which allows people to treat skin conditions such as acne or wrinkles and to protect their skin from the potentially harmful effects of the sun just by wearing the right clothes, first surfaced two-and-a-half years ago.

The basic idea is to use therapeutic fluorescent material in hats or clothing to capture waves of sunlight and amplify them, providing a range of skin health benefits, including the eradication of skin bacteria. The company first tried distributing SunSoul clothing in hospitals, collecting feedback from patients with skin ailments about the difference the products had made to their conditions. Then, an early collection focused particularly on clothes, especially shirts and hats, for the surf-casual market. It launched in North America in the summer of 2007, but a hoped-for surge in demand didn't come.

With the population in many developed economies ageing, sales of beauty and anti-age lotions and creams have been increasing handsomely, which would suggest that the SunSoul concept has come at a good time. But it has been more difficult than the founders



Yelomöd apparel from SunSoul. It passes the skin-refreshing benefits of yellow light from the sun onto the wearer's skin.

Taiwan Textile Federation

hoped to use textiles as a medium for the technology; momentum behind the company remained slow, even after a re-launch in 2008.

Partner's perseverance

But things could have been worse. SunSoul began discussions with Taiwanese technical textile manufacturer Inprotex in 2006, calling on the company at the Magic exhibition in Las Vegas that year, the SunSoul founders explained their idea, which they had already had for some time (they had even had a go at making it work, partnering with companies in Japan and the US, but without success).

"My first thought was that they must be crazy," explains Jessica Wang, chief executive of Inprotex, "but then I began to think that the idea sounded interesting and that we should give it a try. We have been working on material for SunSoul for more than three years now, talking back and forth with the company in Canada, trying out different textures. I think now that this is a very good item."

Colour coding

Just as the sun gives off blue, yellow and red light, these three colours define the categories of clothing in the SunSoul product range.

Blumöd, the first category the company came up with, is a solution for blemished skin. A combination of "comfort and utility" is the reason the company thought from the outset that it would be suitable for bringing professional light treatment technology into high-end sports fabrics. SunSoul describes it as "skin therapy on-the-go for the active lifestyle".

Blumöd fabric has a dense polymer matrix that blocks harmful ultraviolet (UV) rays from the sun while fluorescent compounds in the material convert UV into beneficial blue light, triggering a process called photo dynamic therapy (PDT). During this process, blue light reacts with oxygen and tiny molecules generated by skin bacteria, called porphyrins, suppressing bacterial growth. Wearing the blumöd clothing in the sun only a few hours a week can improve the appearance of blemished and damaged skin, the company insists.

Yellow light is known to promote skin rejuvenation by smoothing the skin, improving its tone and reducing wrinkles or skin discolouration due to ageing or sun damage. To tap into this, the company next came up with yelomöd to offer clients an alternative, "or perfect complement", to spa visits for conventional treatments, as it helps maintain medical treatment results. Only a few hours in the sun a week wearing yelomöd will provide a dose of yellow light similar to a visit to the professional spa, SunSoul insists. The latest idea is redmöd, which is not yet in the company's product catalogue. The benefit that red light can bring, according to SunSoul, is that it can encourage human hair to grow back.



Blumöd blitzes blemishes. SunSoul describes it as "skin therapy on-the-go for the active lifestyle".

SunSoul

The Canadians have developed recipes for all of these solutions, and have made them available to a number of partners. But most of these have had less success in producing fabric that works and that can be made into attractive clothing than Ms Wang's company. "We just kept trying," she says, explaining what Inprotex did differently. "We just never gave up."

Now things are beginning to move. In Canada, the range of available products is on sale in stores, spas, beauty salons and hospitals; blümod products are not yet approved for sale in the US, but the go-ahead from its Federal Drug Administration may not be too far away. But in Taiwan, the same products have now become available through a television shopping channel and, because they seem ideal for golf in particular, at a series of Jack Nicklaus boutique concessions at department stores in Taipei and in second city Kaoshiun.

There is, then, light at the end of the tunnel for SunSoul.