

RISE TO THE CHALLENGE: EASTMAN AND SPYDER

Official supplier of ski suits and apparel to the US Ski Team, Spyder, has worked with the Eastman Chemical Company to construct new baselayer garments using the Avra range of performance fibres. The new baselayers have won the approval of the athletes and paved the way for Avra to make an impact in a wider range of applications in 2019.

Baselayer bonus from above-average Avra

It's 30 years since performance ski gear brand Spyder first became an official supplier to the US Ski Team but, keen to keep the relationship fresh, the Boulder-based brand insists it remains as committed as ever to product innovation.

To prove the point, it partnered with Eastman Chemical Company last year to provide the team's elite athletes with new baselayer garments, made with Eastman's Avra performance fibres. Eastman unveiled Avra in

2016, describing the products ribbon-shaped synthetic fibres with a combination of shape and size "never before seen". Vice-president Tim Dell said at the time: "The apparel industry has known for decades that finer fibres create fabrics with softer hand and enhanced performance. There is a limit, however, to how fine you can go and still knit or weave on conventional equipment."

Ready to compete, US Ski Team athlete Steven Nyman.

 US Ski Team, SmugMug



He explained that the key to Avra is that ultra-thin polyester fibres are extruded and held together by a proprietary removable polymer, enabling knitting or weaving. Once the fabric is made, the removable polymer washes away in hot water, resulting in the ribbon-like fibres, smaller than standard polyester fibres, generating what Mr Dell has called a “distinctly silky fabric”. Performance benefits include high levels of moisture management and a chemical-free ‘cool to the touch’ sensation. Fabrics made with Avra dry up to 50% faster than conventional polyester fabrics and offer good drape and softness, according to Eastman.

Size and shape

“Avra is different from other microfibres and flat fibres available,” explains Dr Dnyanada Satam, Eastman’s segment market manager for textile fibres. “The combination of size and flat shape enables next-level fabric drape and softness while providing moisture and thermal management. This helps the athlete perform better, with superior comfort, as sweat is wicked away faster, allowing the fabric to dry and cool faster.” She says this is what makes it particularly well suited to baselayer products, like those Spyder has made for the US team.

Even the slightest improvement in a fabric’s performance, such as in its wicking and drying rate, can have a huge impact on an athlete’s overall performance, Dr Satam says. She makes it clear Eastman has worked with third-party testing institutes to understand how Avra would perform “in a dynamic environment”. These studies found fabrics made using the fibres to be more responsive to the changes in body temperature and moisture levels, providing “more cooling power” during physical activity to keep the wearer cooler, drier and more comfortable.

Initially, the work with Spyder was on an exclusive basis, with the US Ski Team athletes the only people to have the privilege of wearing the baselayers, but Spyder will open up availability of those particular products by incorporating them into its autumn-winter 2019-2020 collection. Eastman is also working with other outdoor and athletic apparel brands to help them incorporate



Avra into their own baselayer collections. “You can expect to see Avra on the shelf, in stores later this year,” Dr Satam says. And there is interest beyond baselayers.

Three keys

With its three key value propositions (the silky hand and improved drape, the high level of moisture management and the coolness of the touch of fabrics made from it) the fibre is well suited to any next-to-skin application in which fabrics play a role in providing comfort, she says. One example she points to readily is in home textiles, especially those for use in bedding. “Given the global trends in health and wellness, as well as the impact of sleep on overall health, there has been interest in Avra in the home textiles space and we are working with a few partners to explore opportunities in these applications,” Dnyanada Satam concludes.

If the initial response from sleepers is as positive as the reaction athletes in the US Ski Team have given, Eastman will be pleased. Alpine ski racer Steven Nyman was to say that when he put the new baselayer garment on, he had a feeling that he was simply “ready” to compete. Team-mate Jared Goldberg’s comment was that, with so many factors in a downhill or giant slalom race that are beyond his control, wearing a high-performance baselayer garment under his ski suit was something he could control. He liked that. 

Alpine ski racer Jared Goldberg has said he likes the level of control the new baselayer gives him over questions such as staying comfortable, cool and dry while competing.

 US Ski Team, SmugMug