Sports brand Reebok has partnered with “some of the most creative and innovative minds in the world” to create a custom collection of fitness prototypes showcasing the power of Flexweave, a material it first created for sports footwear.

Early success with a new material, Flexweave, has encouraged Reebok to look for applications beyond its original use in sports shoes. The material has an open figure-8 construction that interlocks strands of fibres together to create a single surface construction that is, according to the company, as strong as it is light. A footwear collection that launches this spring will be the first range of products to use the Flexweave construction, in this case applying it to a chenille yarn. But the brand decided it had no reason to stop at shoes when looking for ways to put Flexweave to further use.

In a new set of partnerships, the company has worked with prominent design groups, including New York-based Joe Doucet x Partners (JDXP), London-based Modla and Rotterdam-based Odd Matter. It asked them to “explore Flexweave’s limitless potential” to create other sports and fitness products to complement the footwear collection. Joe Doucet x Partners came up with running gloves, Modla made an altitude training mask and Odd Matter designed a chair for use as a training aid, either in the gym or for cross-training outside.

Odd Matter co-founder Georgi Manassiev says that the first thing that caught his attention when he started working with the material was the texture. And because of its lightness and softness, he and his partner, Els Woldhek, decided that to use Flexweave to make their training chair seemed “logical”. They combined Modla’s mask. The breathability of Flexweave makes it suitable for use in this mask that can aid lung capacity for athletes training at altitude.

Reebok
the material with EVA foam and, according to Ms Woldhek, the “language” between the two materials worked well. “The soles of Reebok sneakers are often EVA because it’s very lightweight,” she points out, “but it also has to be durable, so that was the starting point for us. However, there were a lot of factors about Flexweave that I still find very interesting and that we would love to explore further.”

At Modla, co-founder Jon Fidler has specialised in 3D printing for some years and has already used the knowledge he has built up in projects for other sports and footwear brands, including Nike and Converse. When it came to Flexweave, he says: “The lines and woven structure jumped out at me instantly.” The training mask he and his team have come up with uses an adjustable, triangular-shaped mouthpiece, held in place by the material. The mask restricts air intake, which, Mr Fidler explains, will improve the lung capacity of an athlete training at altitude. “The figure-8 design allows the material to breathe really easily,” he adds.

Just as importantly for Modla, he describes Flexweave as “fitting right into our digitised workflow”, allowing the London-based team to reproduce designs over and over again. “The future of using this material is really exciting,” he says. “I see that there is going to be limitless potential for it within the field of sportswear and design.

JDXP founder, Joe Doucet, says he quickly began thinking about how he could use all of the fabric’s properties to create a single object. This is in keeping with the main driving force behind his design practice: to find interesting solutions to difficult problems. Because of the materials construction, lightness and breathability, he and his team were able to create the running gloves out of “a single material that can have different properties across its surface areas”. He insists they would not have been able to make the same product out of anything else.

Embedded technology in the shape of a Bluetooth receiver and an LED strip means that the gloves light up to provide visibility for runners in the dark. Beyond that, they also indicate the direction the runner needs to go in to reach a particular destination. You use an app to enter the address you want to reach and the light flashes, on either the right glove or the left, when it’s time to turn a corner. “What the gloves are,” Mr Doucet explains, “is a GPS-enabled way-finding device. I can see it going across so many industries. We could have done 100 different projects; the difficulty was choosing only one.”

Odd Matter founders Georgi Manassiev and Els Woldhek examining the shoe in which Reebok originally used Flexweave.

JDXP’s running gloves use integrated electronics to tell runners which way to turn.