INSITE®

CASE STUDY - 5.11

ENGINEERING HIGH-PERFORMANCE INSOLES FOR TACTICAL EXCELLENCE.

The process of crafting cross-training-worthy insoles for 5.11's PT-R Inure Runner.

At INSITE, we collaborate with and create for athletes every day. From our biomechanics lab to the boardroom, our focus remains on the science behind crafting high-performance insoles tailored to the diverse movements of the human body. But when working with a company like 5.11, we took the idea of "high-performance" to the next level to match the standards of their military and law enforcement-grade gear.

THE CHALLENGE:

5.11 is synonymous with purpose-driven gear that primarily caters to highly tactical workers, both when they're in the field and when they're training behind the scenes. From uniform tactical boots to training-specific sneakers, each piece they create is held to an incredibly high standard. When they approached us to collaborate on a new insole for their PT-R Inure cross-training shoe, we understood the challenge ahead: creating an insole that meets 5.11's tactical performance standards while delivering the comfort and support INSITE is known for.

Recognizing that the existing insole design, made from open-cell foam, lacked durability during intense athletic training, we began exploring various combinations of our signature designs and foams to find the ideal fit for the Inure.

THE SOLUTION:

Our collaborative journey began with a thorough discussion of the target application, ensuring alignment with 5.11's exact needs. The first prototype was a customized version of our Contoura insole. Built using data from more than 120,000 3D foot scans, Contoura is proven to fit underfoot contouring and improve comfort for the vast majority of wearers.

Wear testing of the initial prototypes revealed that while the customized Contoura design provided ample arch support, testers preferred a lower, more accommodative arch support shape.

So, for the second round, we designed a prototype using our ArchRelief insole shape with EcoComfort Energy Foam. Featuring targeted arch support with a slim overall insole profile, the ArchRelief insole adds lightweight, form-fitting comfort and pressure relief suitable for nearly every footwear category.

EcoComfort Energy Foam, made from 25% bio-based compounds, provides powerful rebound and springy underfoot cushioning for active underfoot applications — a big step up from the performance of 5.11's previous insole material.

Thanks to a methodical and adaptive approach, our two teams were able to find the exact right high-performance insole shape and foam for 5.11's new high-performance shoe design.

THE RESULT:

This product collaboration was the perfect example of the kind of work INSITE is built for: adaptive, dynamic, dedicated, and data-driven. We invest in the best available biomechanics and physical properties testing to better equip ourselves and footwear developers everywhere for projects like this one, which almost always require a flexible and tester-driven approach. With the aid of 5.11's prompt and comprehensive wear testing, we were able to pivot and adapt to the emerging needs of this new shoe and its intended wearers to find the right solution in a snap.

This partnership underscores our commitment to delivering cutting-edge solutions tailored to the specific demands of our clients' products without ever compromising our pursuit of comfort. Crafting high-performance insoles for a shoe brand of this caliber was an exciting and innovative process, and working with the 5.11 team made it all the more successful.

> **"I think it's satisfying to see how our process led to creating the optimal insole for their needs. This is why we emphasize testing so heavily. We're constantly analyzing our data and editing the product as needed to satisfy our brand customers' and their consumers' needs."**
>
> - Dave Smith, *INSITE Director of Business Development, North America.*

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