

# Make Radically Better Saddles

Powered by **Carbon**



# Why Carbon for Bike Saddles?



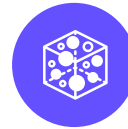
Achieve better performance by diffusing pressure for a more supportive and comfortable ride



Promote maximum breathability with lattice design



Offer customers modern aesthetics and color options



Create variable density and performance out of a single material



Get to market faster by reducing product development cycles



Improve testing cycles by prototyping with the final materials



Manufacture with the proven Carbon Partner Network



Design saddles pro and novice riders alike will love



## Design Insights

- While traditional saddles assemble different types of foam together to vary padding and support, a Carbon-designed saddle uses a multi-zonal lattice that optimizes pressure and support where it matters most by seamlessly transitioning from more to less support and cushioning.
- Using Powered by Carbon for production results in unique designs for the final look of the saddle. Lattice designs have become synonymous with high-end design, but skins can also be added for a totally unique look.
- With Carbon's software automation and algorithmic customization, you can design a saddle once and create thousands of custom designs for individual riders.

## Use Case: Specialized Reimagines Bike Saddles

Specialized was an early adopter of using the Carbon platform for the saddle, designing the Specialized S-Works Power Saddle with Mirror Technology, twice as fast as their normal development process. Working with production partner, Oechsler, they optimized the print file for serial manufacturing to increase yield, speed production, and reduce environmental impact without compromising the design. Specialized has now expanded its product line to include saddles for multiple types of riders and price points



S-WORKS POWER WITH MIRROR



S-WORKS ROMIN EVO WITH MIRROR



POWER EXPERT WITH MIRROR

# Powered by Carbon

## MATERIALS

- **EPU 41:** Highly elastic and tear-resistant, this elastomer also returns energy.
- **EPU 44:** Highly resilient, tear-resistant, energy returning, 40% bio-based.
- **EPU 46:** Carbon's most colorful and flexible elastomer to date. Tunable softness, faster print time, increased design freedom, 40% bio-based, and can be printed in a variety of colors.

## CARBON DESIGN ENGINE™

Carbon Design Engine™ online software empowers designers to make precisely tuned, high-performance latticed padding and other components for products like saddles, helmets, and insoles. It reduces and usually eliminates any need for the tedious, manual editing of struts or structures post-generate and automatically resolves lattice features, both large and small, while robustly transitioning between different zones inside the same part for tunable performance.

## SUPER STATS

- Lattice saddles produced on the Carbon platform can be seen in some of the world's top cycling competitions like the **Tour de France cyclists.**
- **Five of the top 10** helmets rated safest by the NFL have liners designed and printed by Carbon.
- **Over 20% of helmets in the NHL** utilize Carbon technology.
- Millions of midsoles have been printed for adidas shoes, making it **the world's largest application of 3D printing.**

## CARBON CUSTOM PRODUCTION SOFTWARE

Carbon's methodology enables rapid and efficient production of customized parts tailored to each user. Customers can easily pair Carbon's lattice design and production workflow with personalized data from scans, pressure maps, or other data sources to automate design and enable mass customization.

## DIFFERENTIATION

Powered by Carbon can produce a wide range of designs, the sky's the limit to what you can do to make your product stand out whether it's a distinct performance result or unique aesthetic using textures or lattices.

## PARTS MADE WITH METAMATERIALS:

- Saddles
- Helmets
- Gloves
- Insoles
- Footwear
- Backpacks
- Workwear
- Padding
- Grips

## GET FROM IDEA TO PRODUCTION-FAST

With the Carbon platform, you can iterate rapidly and print a new version without having to change tooling. Because you can prototype with the same materials used in the final product, you can start printing production parts as soon as your design is ready.

## CPN

The Carbon Production Network (CPN) is a global ecosystem of leading industry design firms and contract manufacturers who are experts in the Carbon idea-to-production platform. Find a CPN partner based on your needs and leverage the power of the Carbon platform to design, develop, and produce radically better products.

[FIND A CPN PARTNER](#)

## WANT TO GET STARTED?

Reach out to learn more about how you can make radically better saddles Powered by Carbon.

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# PERFORMANCE ENHANCING TECHNOLOGY

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