Steelcase®

Karman™

3 Meet Karman

10 Beyond Covention

14 Beyond Mesh

19 Beyond Comfort

26 Specification

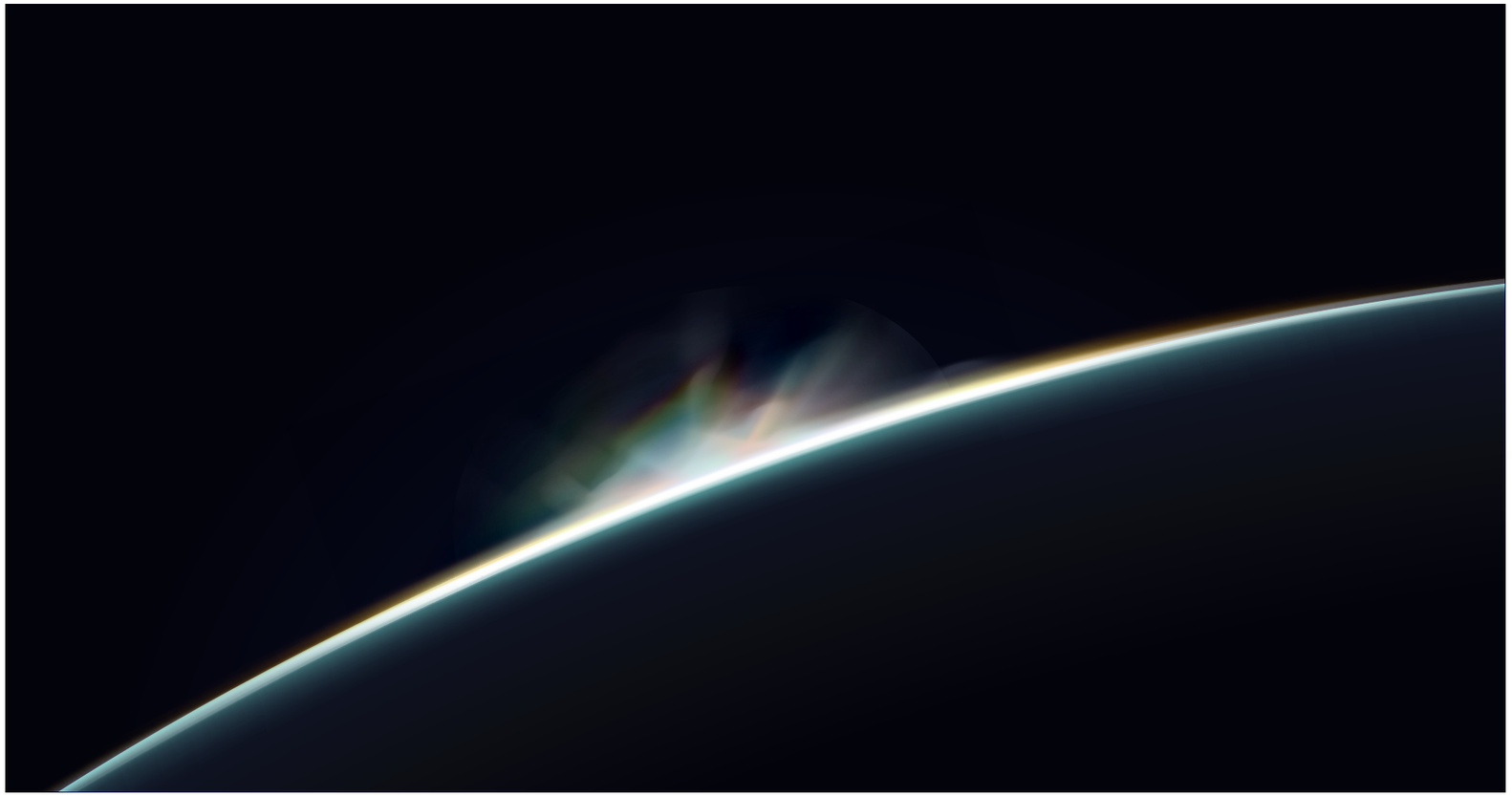
30 The Steelcase Seating Difference

Meet Karman



Boundless Possibilities

The Kármán Line is where the earth's atmosphere meets space, weightlessness becomes possible and where going beyond becomes a reality. That spirit and feeling is captured in Steelcase Karman.



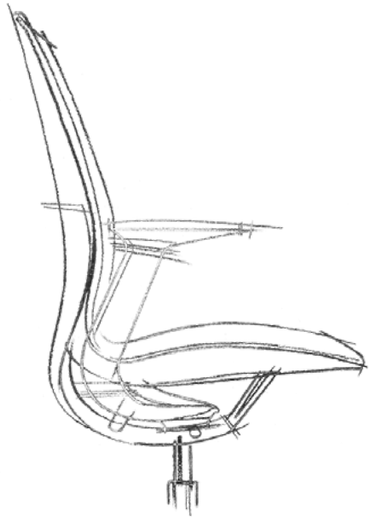


"Karman is the amalgam of all our learning and legacy – there's DNA of every single one of our chairs built into it. It's the evolution of everything we know about seating and the way people work."

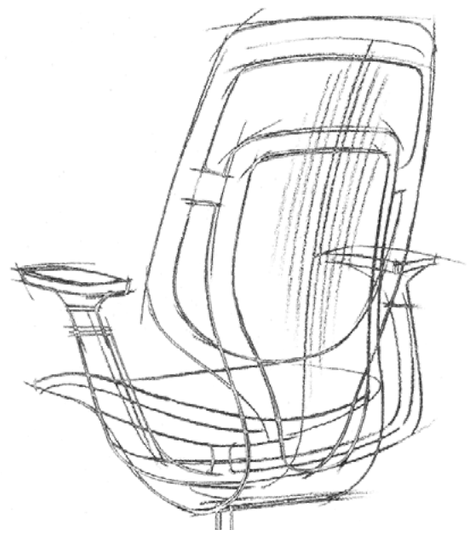
Mark Spoelhof, Steelcase Global Design Director

Inspired by Material Innovation

Material innovation, a key driver in high-performance sports—from swift racing bikes to advanced prosthetics—has now propelled office furniture design to new heights. This philosophy informed the creation of Karman, where the strength and agility of carbon fiber birthed the LessThanFive Chair, an epitome of featherlight resilience. Similarly, Silq's sculptural back emerged, bypassing traditional mechanics for graceful support, allowing a single, streamlined component to deliver responsive ergonomic comfort. Such innovations exemplify the future of workplace design, where complexity is distilled into simplicity, and support becomes intuitively synchronized with movement.







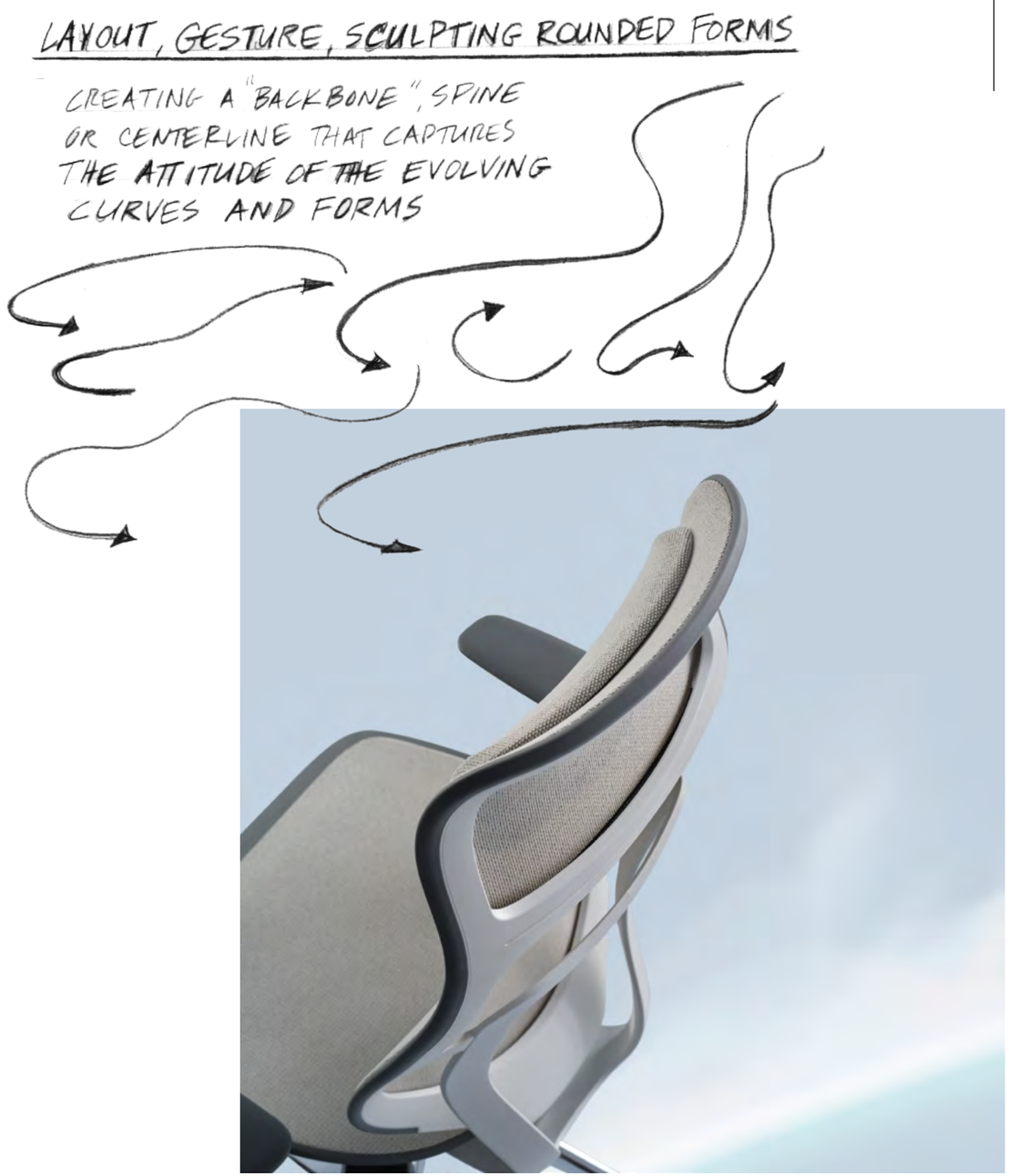


The LessThanFive chair shows seating in an entirely new lightness. Handcrafted from carbon fiber, it’s surprisingly light and exceptionally strong.

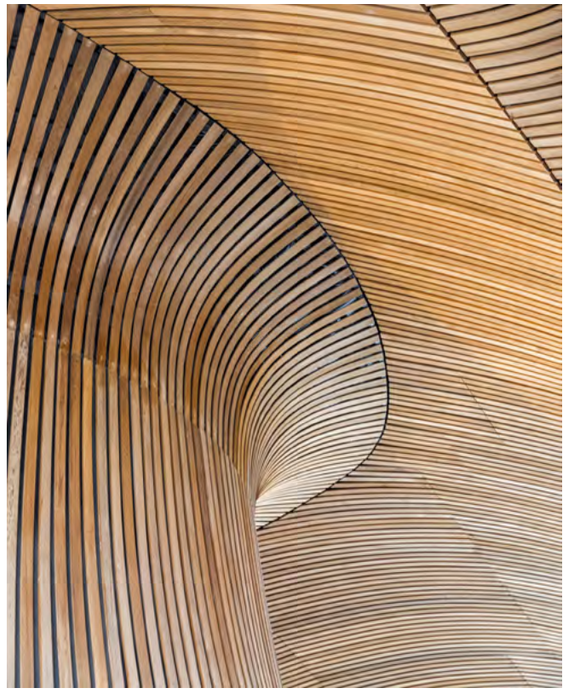
The idea for SILQ was clear; we wanted to create a chair that’s simple, more organism than machine. To get there we pushed the boundaries of material science. Through explorations with carbon fiber, we achieved our vision.



Inspired by Nature



Drawing inspirations from the organic fluid form found in nature, the chair's seat and back possess an organic flexibility that seamlessly synchronizes with the movements in the lower frame.



"Nature has been an inspiration for us throughout the process. Both the seat and back have an organic flexibility that harmonizes with the movement in the lower frame. We were going for a level of fluidity that didn't exist before. Your body has that fluidity. When you're in this chair, it follows you. And that's just like nature."

Nick Deevers,
Steelcase Senior Principal Engineer

Inspired by Technology



Embodying the ethos of efficiency and precision, Karman's design philosophy mirrors the sleek contours of aircraft, optimized for minimal drag and maximal functionality. The result is a chair that achieves a lightweight profile without sacrificing durability or performance. With fewer parts and streamlined aesthetics, Karman captures the 'less is more' approach, ensuring that every element serves multiple purposes, much like the multi-functional components of high performance equipment.





Beyond Convention



13 kg

Karman not only utilizes sustainable materials, but also boasts a minimalist design with the fewest components required. By meticulously designing each component to serve a multitude of functions, we have successfully reduced the overall use of material, which in turn has a positive impact on the environment.

Guided by physics to achieve responsive movement, the team managed to craft Karman with a lower weight of only 13 kilograms, making it a leader in the mesh chairs. Despite its lightness, the material innovation enables Karman to be incredibly strong.

"We've pushed materiality, shape and geometry as far as we can push them, using significantly less material than other performance chairs while offering even better affordances. Many of Karman's parts are doing double or triple duty allowing it to function with about one-half less material than traditional task chairs so that it is as organically responsive to the human body as possible"

Mark Spoelhof, Steelcase Global Design Director

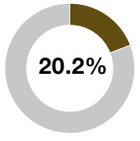
Designing for Sustainability

We create products that are good for people, and good for the world. Our products and operations are designed around a commitment to reduce climate change, reinforced by sustainable practices across our value chain.

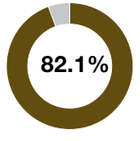
Our Sustainable Design framework ensures our products are designed with consideration of life cycle thinking and cradle-to-cradle principles:

- Source materials responsibly
- Minimize global warming and other life cycle impacts
- Ensure material health
- Enable end-of-use strategies





Total Recycled Content by Weight



Recyclability by Weight

MATERIALS AND PRODUCTION

Manufactured with 20.2% recycled materials and uses a minimum number of materials and components for sustainable manufacturing. Designed to be made with minimal waste, energy consumption and environmental impact.

USE

Designed for long product lifestyle with supporting warranty. Tested on indoor air quality and achieved Indoor Advantage™ Gold certification.

END OF LIFE

Product is 82.1% recyclable and packaging is 100% recyclable.

Better Materials

Responsible design is integral to the Steelcase design team so Steelcase Karman was designed with the planet and the future in mind. Steelcase Karman not only uses sustainable materials, it's also comprised of the least number of components necessary. Because the design approach uses physics to create responsive movement, the team was able to design the leading model weighting less than many leading mesh chairs. And yet the engineering of Steelcase Karman makes it incredibly strong.



Product Composition

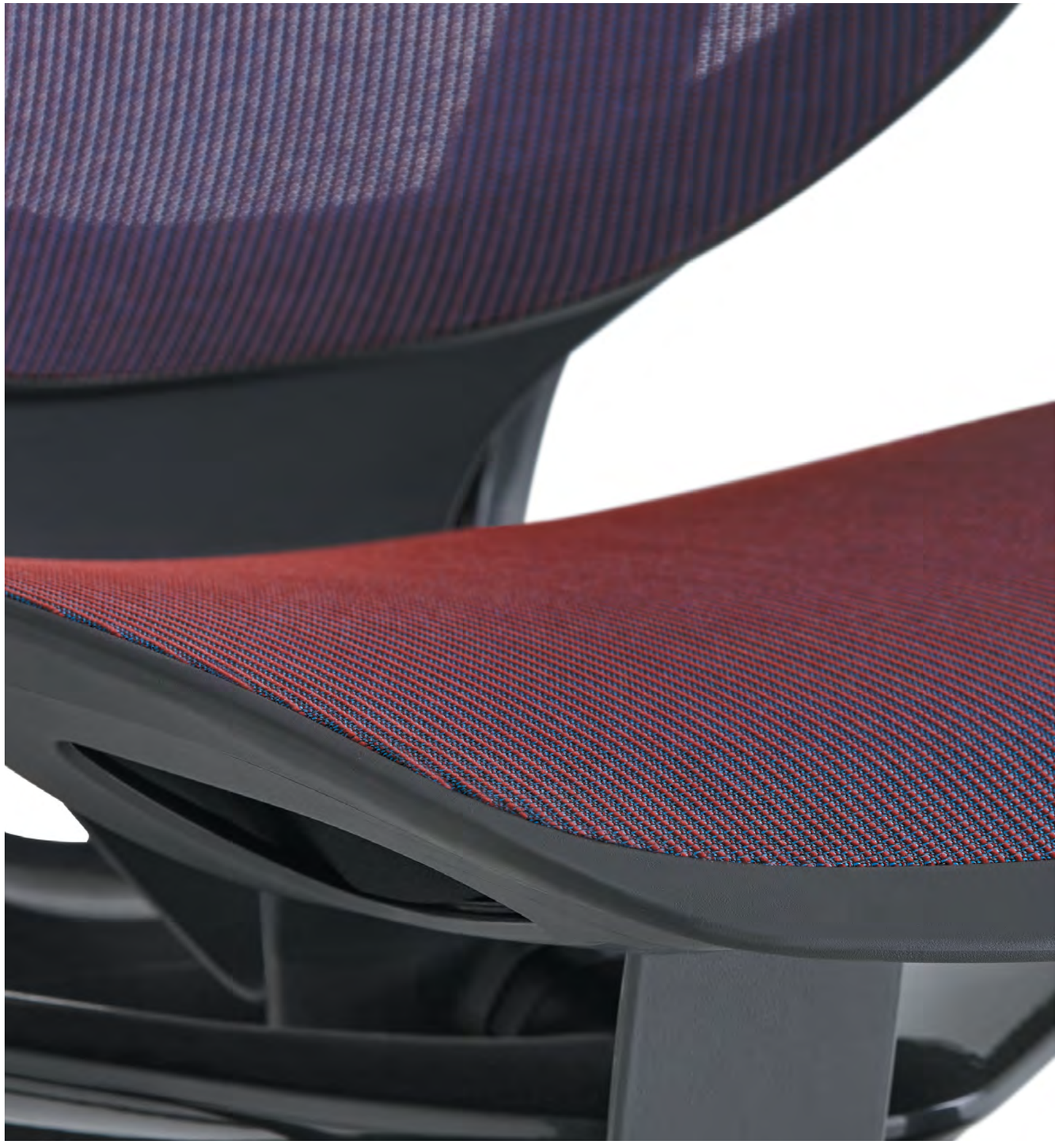
Material	Weight (kg)	Weight (%)	Resource Type
Steel	3.594	27.4	Recycled, virgin non-renewable
Aluminium	0.539	4.1	Recycled, virgin non-renewable
Polyoxymethylene (POM)	0.434	3.3	Virgin non-renewable
Polypropylene (PP)	1.312	10.0	Virgin non-renewable
Nylon (PA6 and PA66)	6.842	52.1	Recycled, virgin non-renewable
Thermoplastic Polyurethane / Thermoplastic Elastomer (TPU/TPE)	0.353	2.7	Virgin non-renewable
Other	0.06	0.5	
Total	13.133	100	

KARMAN IS ALSO PERFORMANCE TESTED AND CERTIFIED TO ALL MOST STRINGENT APAC TEST STANDARDS INCLUDING:

Declare
AFRDI Blue Tick
AFRDI Green Tick
SCS Indoor Advantage Gold – Furniture
Environmental Product Declaration (EPD) by NSF


10
PLANTOPEDIA

Beyond Mesh



Intermix fabric immediately draws the eye when you encounter the Steelcase Karman. This distinctive textile, in harmony with Karman's agile frame, ensures optimal tension across the seating surface, uniformly distributing your weight. It adapts fluidly to every shift, embracing your body's unique shape for consistent ergonomic support. The resilience of Intermix ensures the chair retains its shape without sagging or stiffness, distinguishing Karman from conventional mesh chairs and underscoring its innovative appeal.

Intermix achieves a perfect tension that distributes your weight evenly over the seat and back, flexing to your movement and fitting the contours of your body perfectly with delivering a smooth comfortable touch.

And no sagging – that’s a Steelcase guarantee!

Intermix

After countless hours of collaboration and experimentation, the team created a new proprietary performance textile called Intermix, which is developed through an exclusive weaving process that incorporates yarns and filaments into the weave.



It's this innovation that allowed us to create Karman, and guarantee the chair matched the performance we demand from our products.

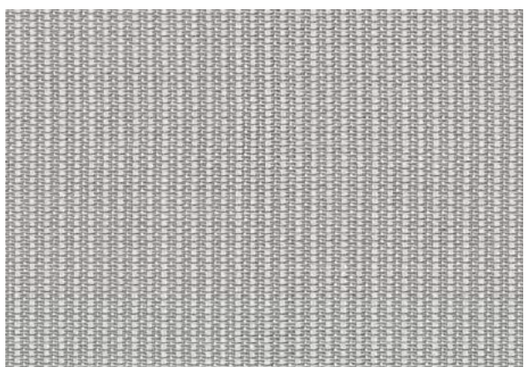


"People like the air circulation, lightness and liveliness of mesh, but we were concerned about the performance.Mesh seats can behave like a hammock where all the weight is in the center. Wedidn't want to work with mesh until it could deliver a true performance benefit."

Steelcase Material Specialist

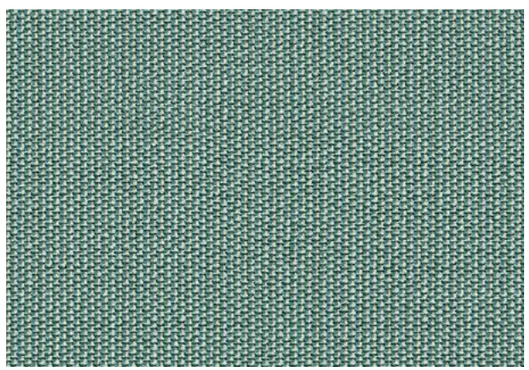


Without impacting the technical performance, filaments can be woven closer together or further apart for a near translucent or opaque finish.



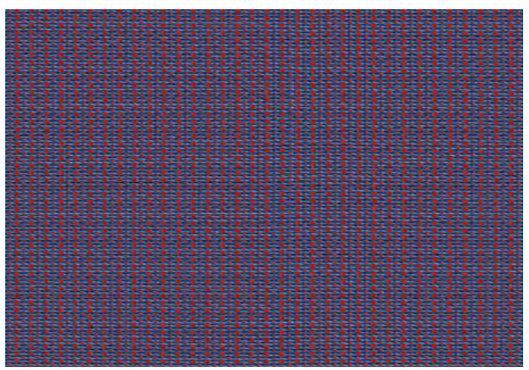
INTERMIX

Intermix is classic and translucent with a more traditional mesh look and feel.



INTERMIX OPAQUE

Intermix Opaque is luxurious and residential with the hand-feel of upholstery.



INTERMIX SHIFT

Intermix Shift is colorshifting and provocative with a dynamic visual that changes with light and viewing angle.

Intermix Shift



Incorporating a multicolor weave produces a captivating effect of dynamic color shifts when viewing the chair from various angles.



Beyond Comfort

Karman’s systematic approach to comfort relies on multiple components working in harmony to deliver an experience that goes beyond, keeping you engaged with your work and comfortable throughout the day.



Patented Hybrid Seat

Karman departs from convention, by incorporating Intermix with integrated cushioning and an innovative Comfort Edge flexible frame. The passive edging of this patented hybrid seat is able to flex up to 38.1mm, removing pressure on the thighs and promoting better blood circulation to your legs and feet.

This one-of-a-kind solution goes beyond comfort to unparalleled support.



1 **INTERMIX PERFORMANCE TEXTILE TECHNOLOGY**

Hybrid construction of suspended proprietary performance textile upholstery and integrated cushioning to provide optimal comfort.

2 **PATIENTED HYBRID SEAT**

Channels and pockets molded within the seat cushion provide consistent comfort and support to a range of users.

3 **COMFORT EDGE SEAT PERIMETER**

The ultra-light frame flexes to eliminate hard edges and pressure points on your legs and body.

LiveBack®

LiveBack® Technology

The human body is never still. Even when people are working, they are constantly making micro-movements. Designed to provide dynamic and continual lower-back support, Steelcase's patented LiveBack responds to every micro movement as you shift positions, promoting proper alignment of the spine and providing continuous comfort throughout the day.



Weight Activated Mechanism

Karman's Weight-Activated Mechanism keeps the back in the correct posture regardless of your seating position.

2.8 : 1

With a unique ratio of 2.8:1, the intelligent seat mechanism adjusts 1 degree for every 2.8 degrees the backrest reclines. The patented weight-activate synchronized mechanism keep you in the ideal vision and reach zone.



Recline Support



The recline dial controls the recline range of the back and seat. Switch between full back stop to a weight activated recline of up to 28 degrees.

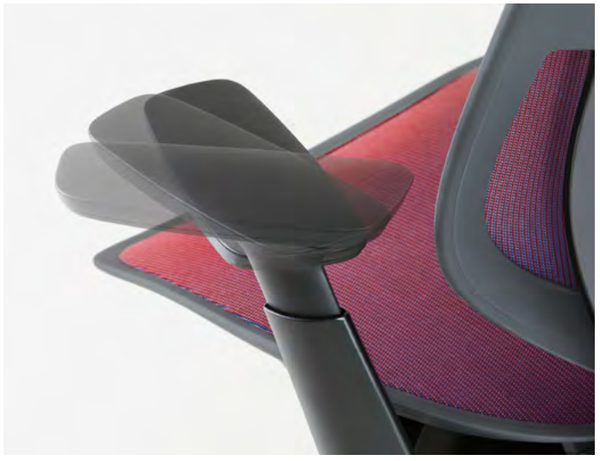


MICRO-ETCHING

Every aspect of the Karman is meticulously crafted with you in mind. The responsive comfort dial, the only touchpoint you'll need on Kamran, features a premium micro etching.

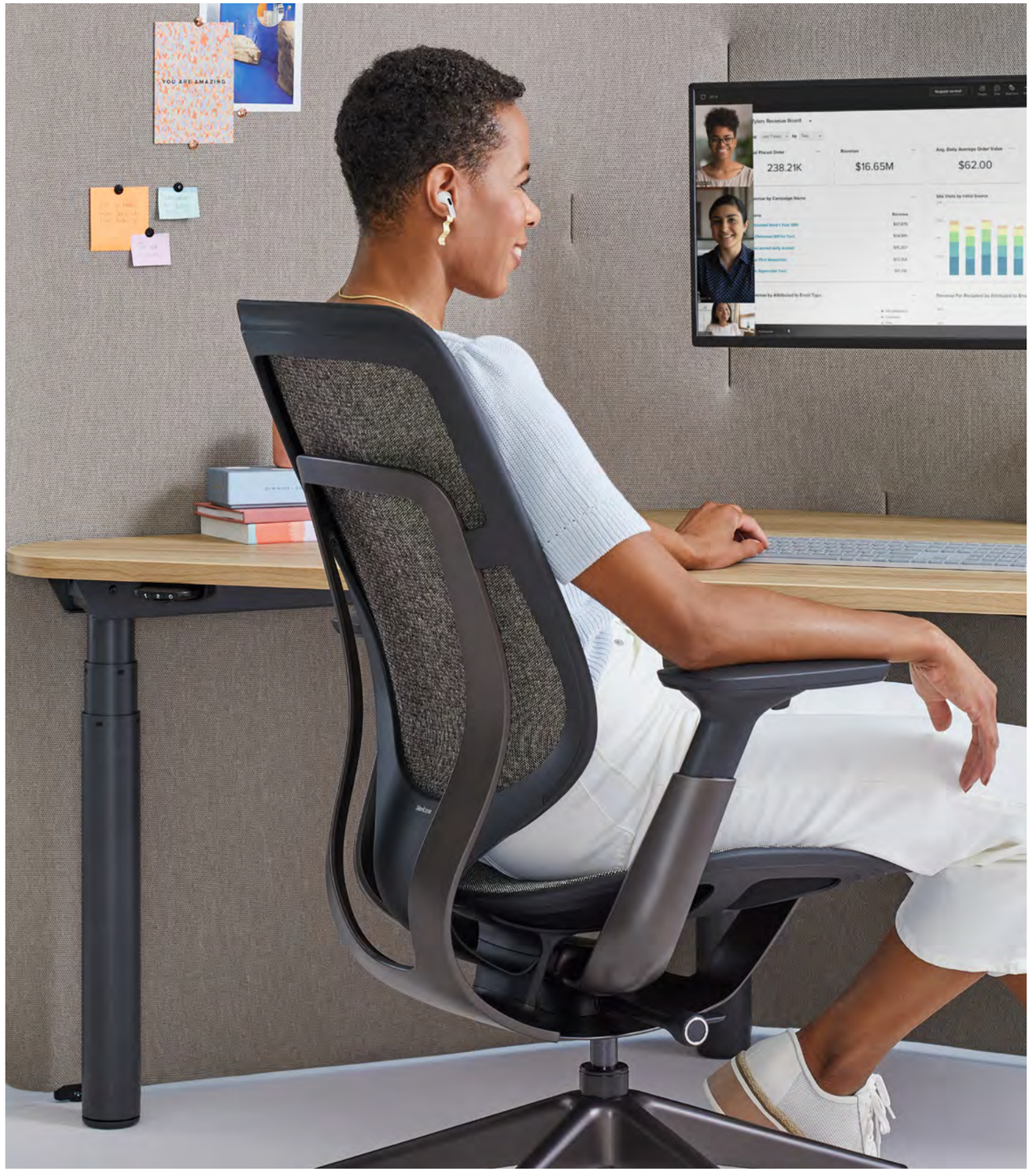
Connection

Perfecting the balance between comfort and productivity, Karman effortlessly adapts to your posture to ensure you stay connected to your workspace. Fixed arm positioning ensure that your arms remain parallel to your desktop whatever position or recline you are in and, paired with multidimension arm pads, they'll always be comfortable.

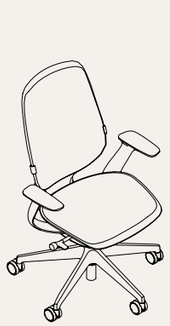


4D Arms

Telescope, pivot, move forwards, backwards and adjust up and down so you can find a natural position that supports your wrists, forearms, shoulders and neck.



Features + Adjustability



Upholstered Back and Seat



Upholstered Back and Seat (High back)

**Available as import model only*



Upholstered Back and Seat (Stool)

DIMENSIONS

	Chair	High Back	Stool
Overall Depth	664mm	664mm	664mm
Overall Width	664mm	664mm	664mm
Overall Height	991 to 1105mm	1187 to 1299mm	1146 to 1330mm
Seat Height	402 to 519mm	402 to 519mm	549 to 733mm
Seat Depth	438mm	438mm	438mm
Seat Width	489mm	489mm	489mm
Back Height from Seat	635mm	635mm	635mm
Arm Height from Seat	203mm	203mm	203mm
Seat Pan Angle	-1˚ to 7º	-1˚ to 7º	-1˚ to 7º
Angle between Seat & Back	-97˚ to -112º	-97˚ to -112º	-97˚ to -112º
Weight Limit	159 kgs	159 kgs	159 kgs



ORGANIC MOVEMENT
A weight-activated mechanism responds automatically to your body as you sit and change postures in every direction.



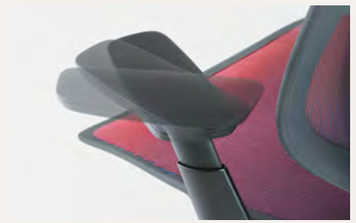
PATENTED HYBRID SEAT
The suspension seat integrated cushioning provides maximum comfort for as long as you sit.



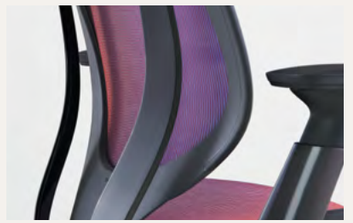
COMFORT EDGE
The ultra-light frame flexes to eliminate hard edges and pressure points on your legs and body.



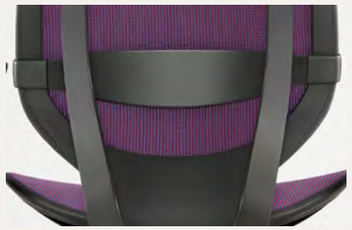
COMFORT DIAL
The comfort-dial supports four recline positions, letting you dial in the right level of resistance against your back as you recline.



4D ARM
Fully adjustable armrests raise up and down, pivot in and out and shift in all directions, letting your arms and shoulders fall naturally into place.



LIVEBACK
LiveBack® technology balances body weight, supporting your back and spine while providing responsive, personalized comfort and fit.



LUMBAR SUPPORT
Optional lumbar support allows you to customize the support for your lumbar region.

Surface Materials

FRAME/BASE/ARM

LUX COATINGS

Burnished Bronze
Matte Brass
Matte Copper

TEXTURED

Black
Merle
Platinum
Seagull
Polished Aluminum

BACK AND SEAT

INTERMIX

Platinum
Black
Baltic
Bright Peacock
Merlot

BACK AND SEAT

INTERMIX OPAQUE

Black
Baltic
Peacock
Bronze
Merlot
Platinum
Seagull

BACK AND SEAT

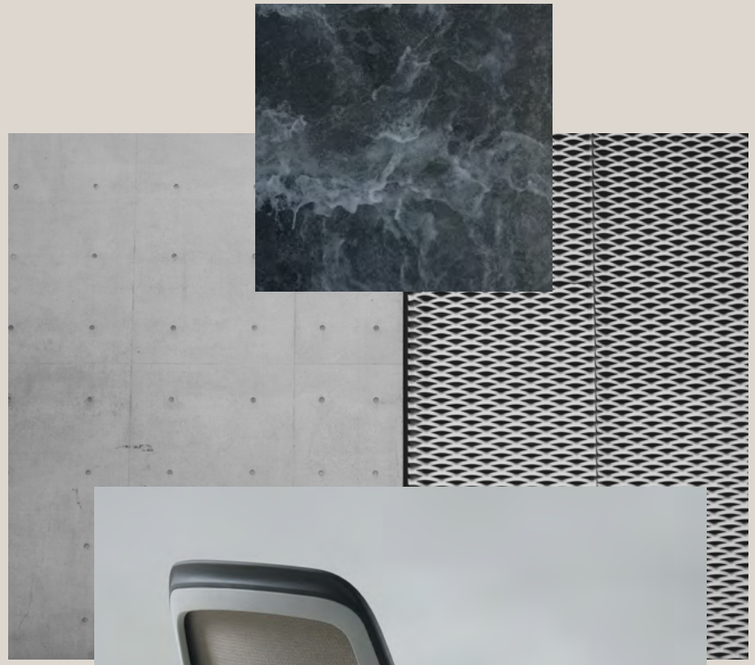
INTERMIX SHIFT

Blue-Gold
Red-Blue





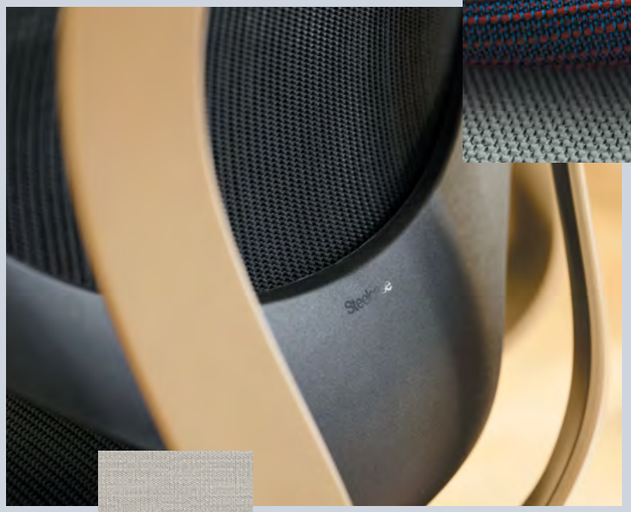


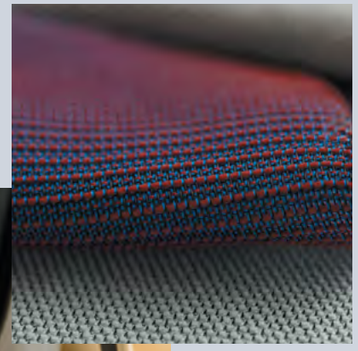




Light and expressive colors inspired by natural elements create a sense of comfort at work.

Warmer neutrals and more vibrant colors inspired by biophilia create environments that intersect with nature and provide a sense of wellbeing.

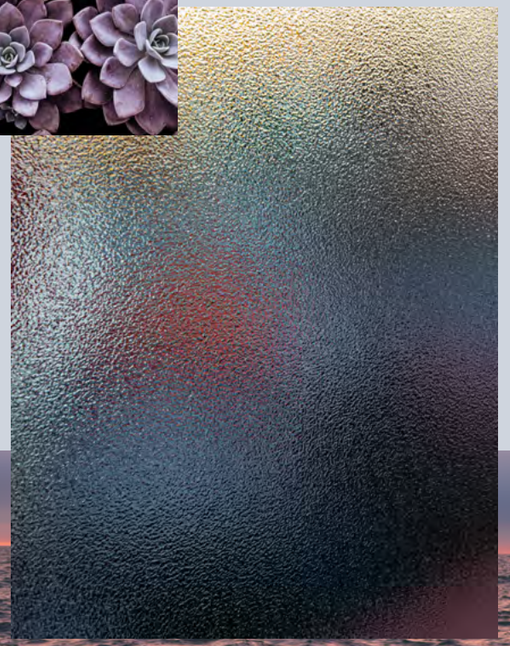


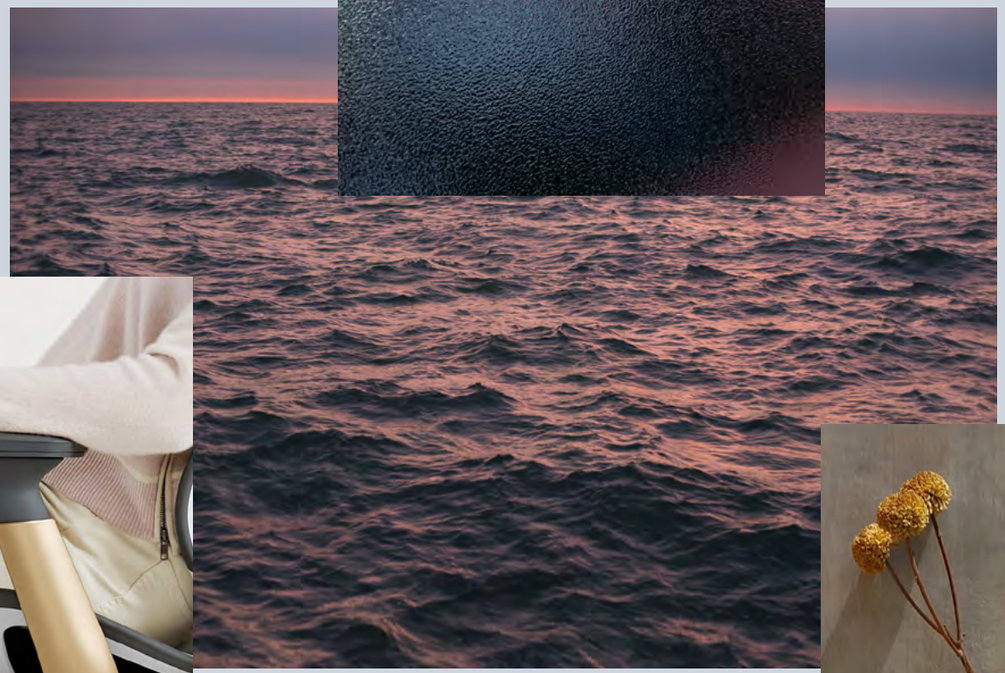




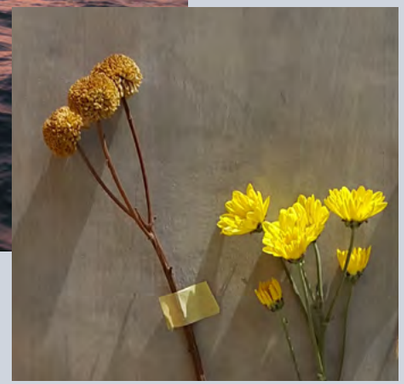


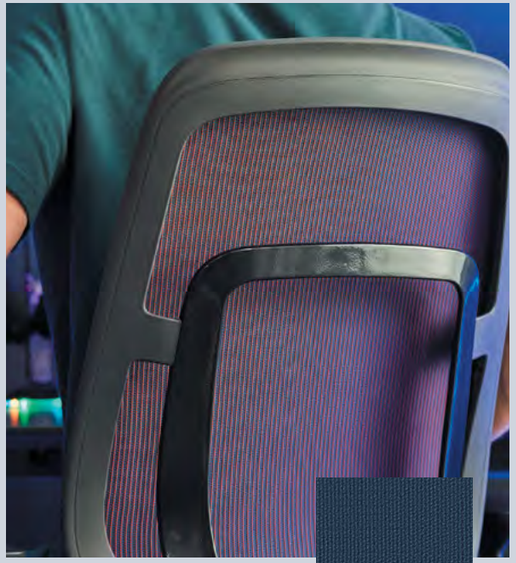


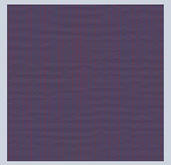


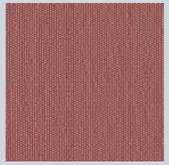












The Steelcase Seating Difference

It’s about more than a chair for us. It's our deep understanding of people, how they work, how they move and feel andwhat they need while they work. Our insights inspire new seating solutions, expressed with uncompromising quality, craftsmanship and sustainability.



Steelcase®

steelcase.asia

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