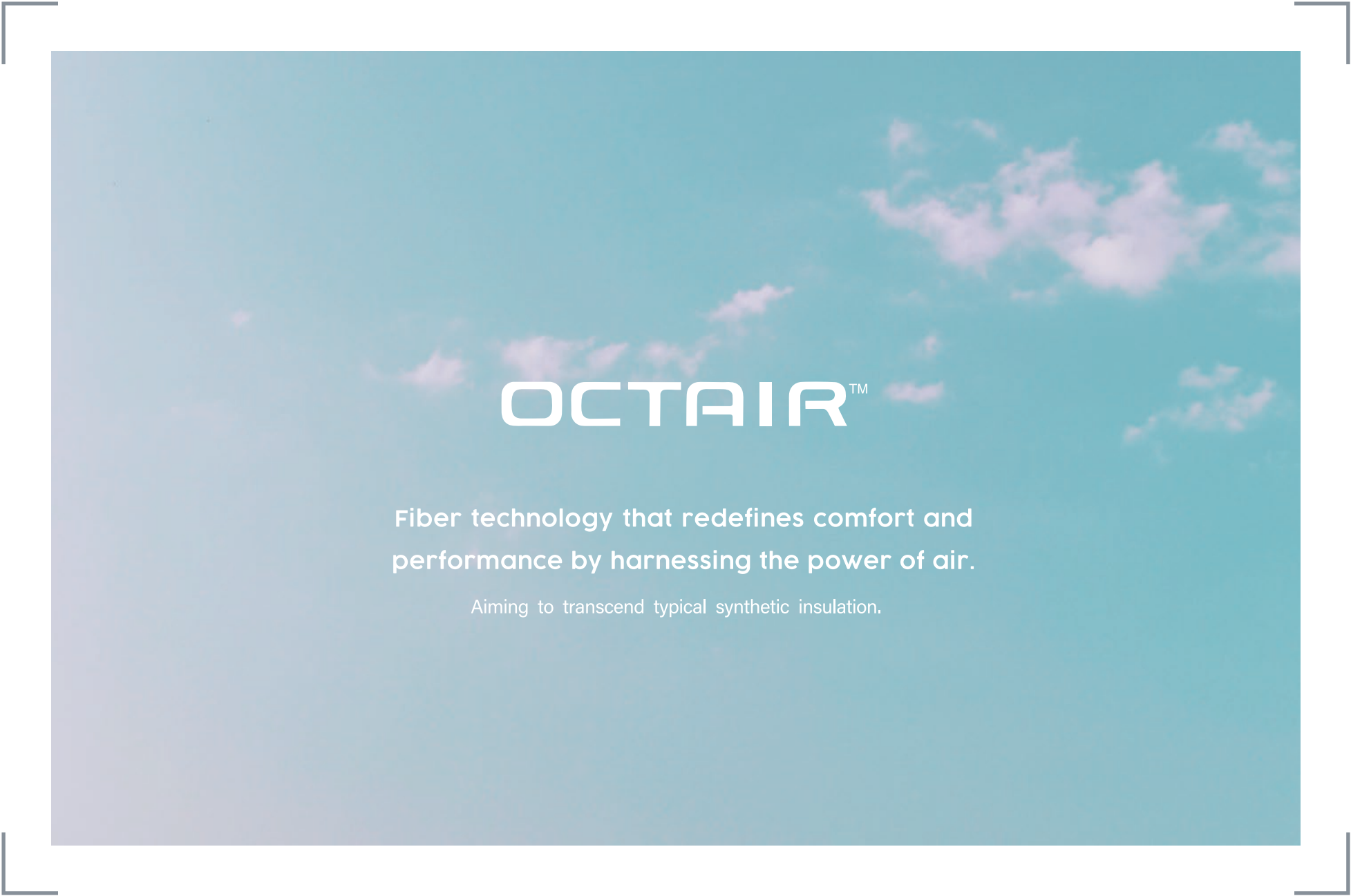


OCTAIR™



OCTAIR™

Fiber technology that redefines comfort and
performance by harnessing the power of air.

Aiming to transcend typical synthetic insulation.



OCTAIR™

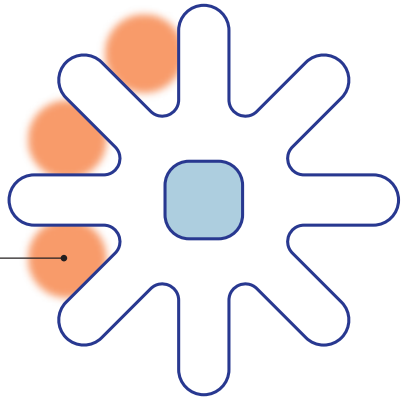
OCTAIR™ — Innovative fiber technology that elevates modern living and adapts to ever-changing lifestyles.

- Lightweight, but keeps you warm
- Compressible and packs down small
- Soft, quick drying, and easy to clean
- Recyclable and good for the environment

FEATURES & ADVANTAGES

Feature / Key Advantage

Heat Retention / Lightweight



Heat Retention

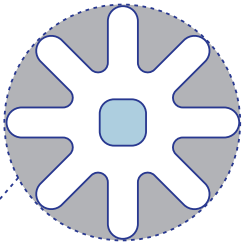
Tiny gaps created by the eight fin cross sectional design help to capture and channel air, while the spaces between the fibers prevent heat from escaping - resulting in excellent thermal insulation.

Performance

Evaluation conducted on garment filled with 43g.

	OCTAIR™	BALL FIBER	DOWN
Heat Retention(%)	73	71	75
CLO Rate	2.0	1.8	2.1

The value is based on actual measurement and is not guaranteed.



Conventional Fiber Diameter

Lightweight

Lightweight by Design: The synergy between the 8-fin shape and hollow core reduces fiber volume and weight. Compared to conventional fibers of the same diameter, OCTAIR™ achieves superior lightness through structural innovation.

FEATURES & ADVANTAGES

Feature / Key Advantage

Packability / Recovery

1.



Place 22 grams of OCTAIR™ into a glass container (φ75 mm) and adjust to ensure uniform density.

2.



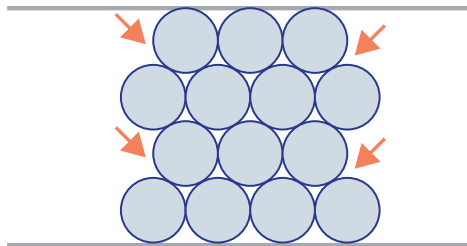
Drop A 760-gram weight on top, compressing the material to one-third of its original height.

3.



Once the weight was removed, OCTAIR™ returned to its original height.

Regular Fiber



Fibers cluster into lumps

= Low Deformability / Limited air space within fibers
→ Low packability

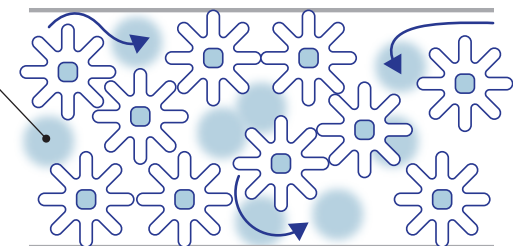
Packability

The eight-fin structure creates gaps between fibers, trapping air to enhance compressibility and packability.

Compression Recovery

The unique Spiral Crimp technology provides high compression recovery, ensuring easy care and compact storage during the off-season.

OCTAIR™



Fin-shaped structure reduces fiber clustering

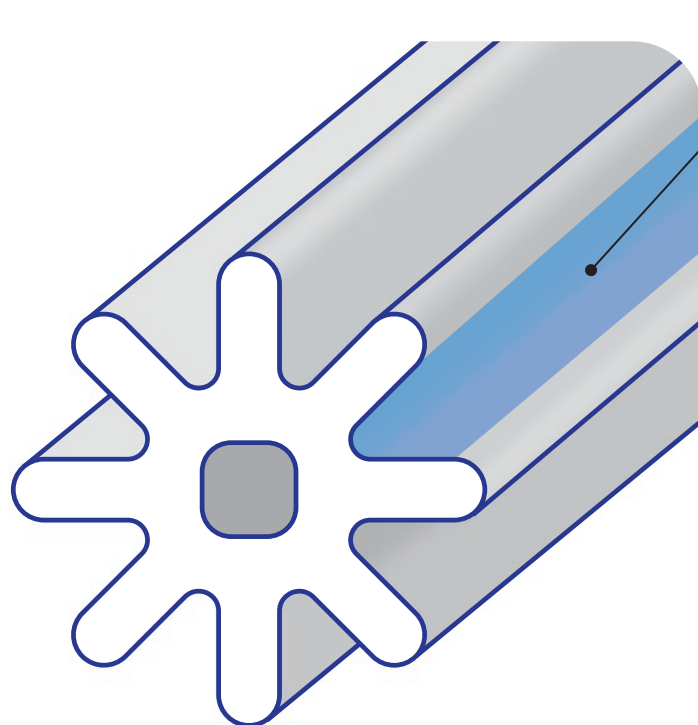
= The fiber moves flexibly / captures large volume of air
→ Pack to compact / gentle to the touch

FEATURES & ADVANTAGES

Feature / Key Advantage

Quick-Drying / Airy / Easy Care

OCTAIR™



Quick-Dry

The grooves formed by the eight fins allow water to spread quickly, and the large surface area promotes rapid evaporation. The water-repellent finish on the surface accelerates quick-drying performance.

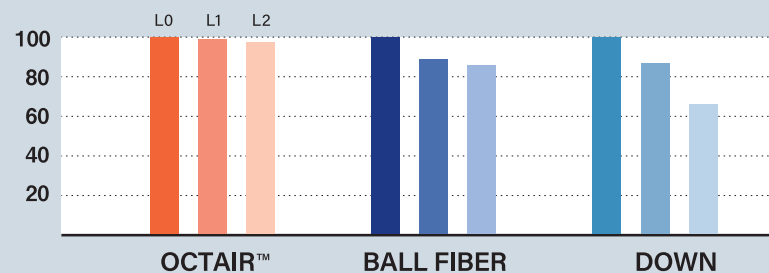
Airy

The proprietary eight-fin cross-section minimizes fiber clustering, enabling optimal air retention and delivering superior loft and softness.

Easy Care

Washable with Sustained Thermal Insulation Performance
OCTAIR™ maintains its thermal insulation properties even after repeated washing, enabling easy care without compromising warmth.

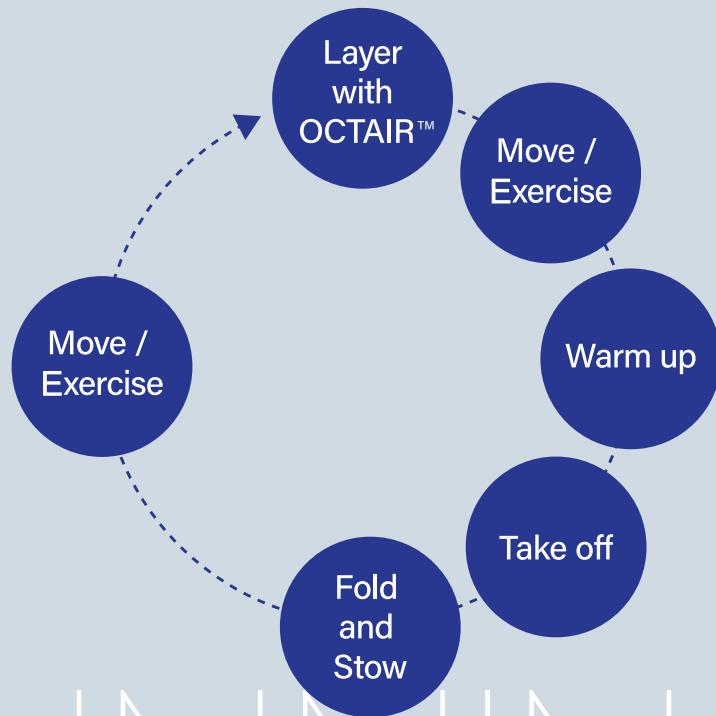
Performance



*Test conducted using a miniature blanket equivalent to 400g of filling.

*Thermal insulation before washing is set as 100.

ACTIVE



OCTAIR Method

Warm. Lightweight. Packable. Quick Drying. Retains Shape.
OCTAIR™ redefines insulation for
active lifestyles -Unleashing
new possibilities in motion.



ACTIVE



OUTDOOR



DAILY

Pack Light. Stay Right.

Enhance the portability of your gear - from outerwear to sleeping bags.



KIDS

Warm. Lightweight. Packable. Quick Drying. Retains Shape.

OCTAIR™ redefines insulation for active lifestyles-Unleashing new possibilities in motion.



Play Hard. Clean Easy.

OCTAIR™ supports active kids with breathability, warmth, and easy-to-clean performance.

RELAX

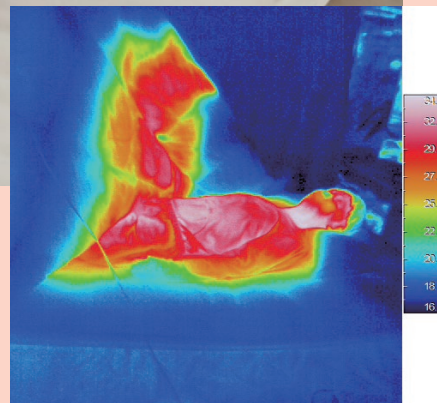
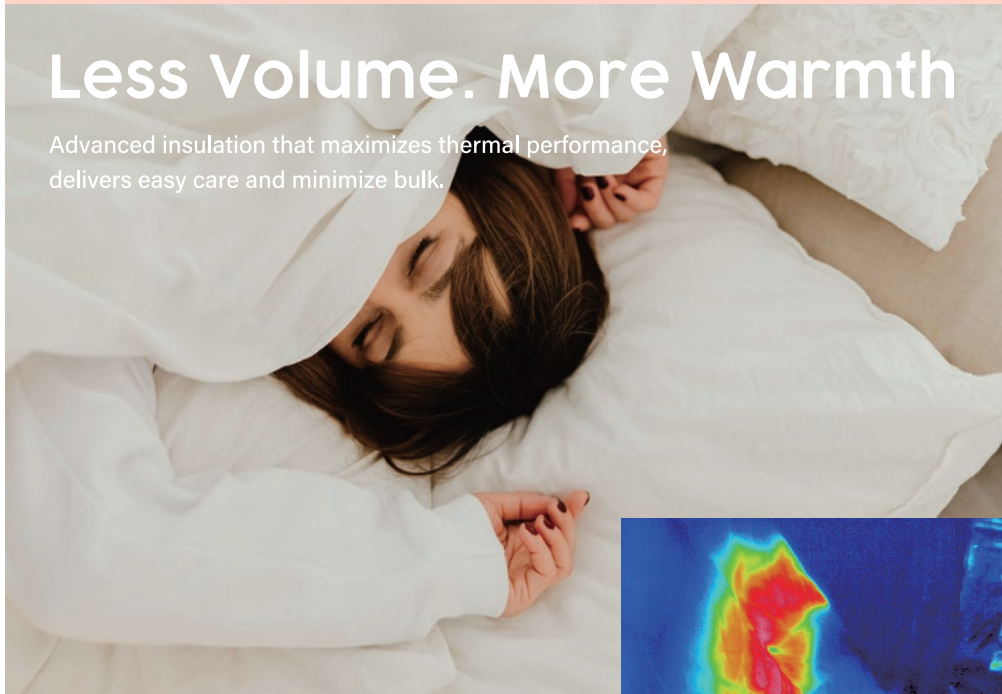
Bedding

Traditionally seen as a down alternative, synthetic fill has long equated warmth with bulk. OCTAIR™ breaks this paradigm by delivering high thermal performance in a thin profile, while actively regulating in-bed humidity from perspiration — meeting the diverse comfort demands of modern sleep environments.

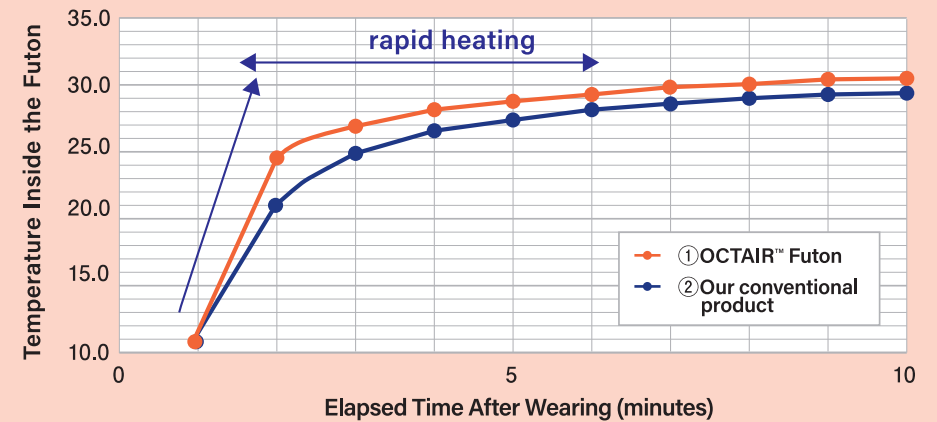
OCTAIR™

Less Volume. More Warmth

Advanced insulation that maximizes thermal performance, delivers easy care and minimize bulk.



Thermal Insulation (Wear Test)



Test Description: Temperature sensors were placed inside the comforter, and temperature changes were recorded for 20 minutes.

Test Environment: Conducted in a climate-controlled chamber at Shinshu University (10°C, 50% RH).

*The test was conducted in a 20°C, 50% humidity environment, simulating perspiration during rest.



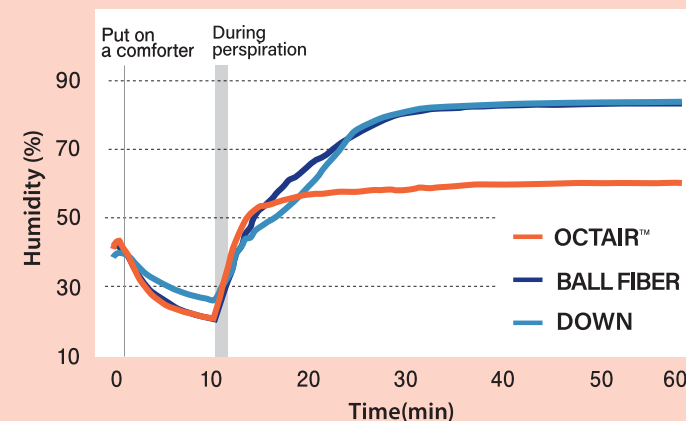
Stay Dry, Sleep Better

By effectively managing humidity caused by perspiration, OCTAIR™ helps maintain a dry and balanced sleep environment—supporting sustained comfort throughout the night.

The pursuit of warmth in bedding has historically overlooked the impact of perspiration—making humidity control a key factor in sleep quality.

Test procedure: Rest at 20°C × 50% RH (air-conditioned environment)
 → Start temperature and humidity measurement → Put on comforter at 1 minute
 → Start sweating at 10 minutes
 → Measure for 60 minutes

*The test was conducted in a 20°C, 50% humidity environment, simulating perspiration during rest.

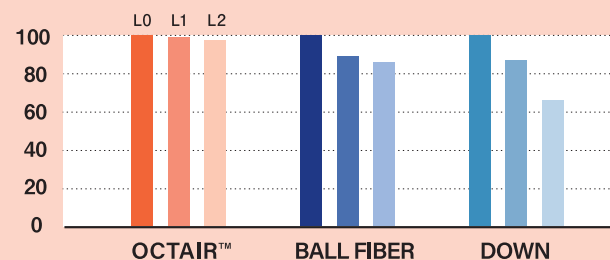


warmth That Lasts - Even After washing

OCTAIR™ retains its thermal efficiency even after repeated washing, unlike down or cluster fibers that degrade over time.



Performance



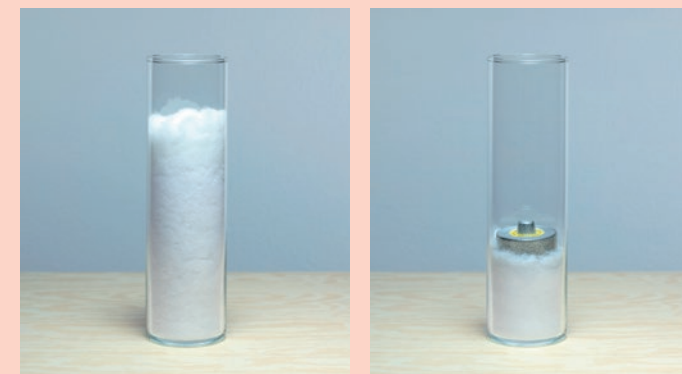
*Test conducted using a miniature blanket equivalent to 400g of filling.

*Thermal insulation before washing is set as 100.

Designed to fit, built to save space

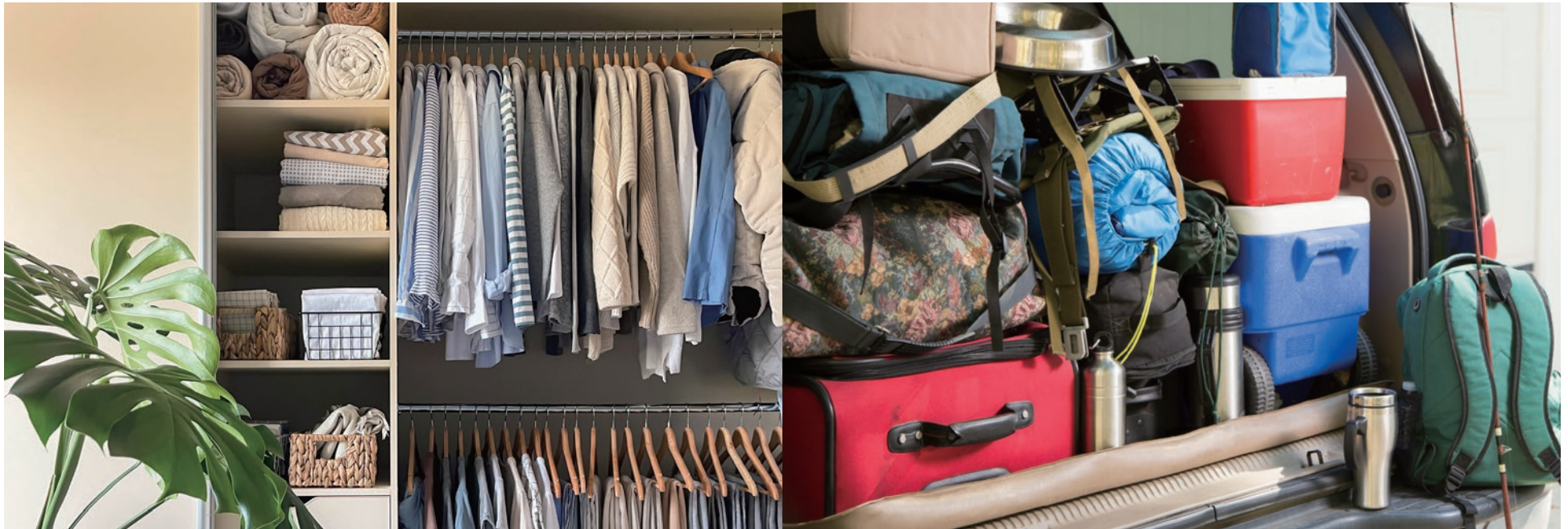
The 8-fin fiber structure prevents fibers from sticking together, creating space to trap more air.

This makes the material highly compressible and easy to store.



Optimized for minimal storage areas

Seasonal clothing and bedding tend to overcrowd storage areas when not in use.



— Compact to store, powerful in use, effortless to care .

**OCTAIR™, Optimizing modern life
through fiber innovation.**

ENVIRONMENT

OCTAIR™

OCTAIR™

OCTAIR™ enables fiber development using environmentally - friendly materials — without compromising performance.

SOLOTEX®

SOLOTEX® is an eco-friendly fiber made with 37% plant-based polymers, helping reduce fossil fuel use and greenhouse gas emissions.



ECOPET®
Quality from Waste

ECOPET® is made not from petroleum, but from recycled PET bottles, used clothing, and production waste. It helps reduce both landfill waste and CO₂ emissions.

TEIJIN

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Staple Fiber Materials Section

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Contact us