

EcoCell  
for a cleaner future...



**kara** | HOLDING

# KARA HOLDING

## A manufacturer with 31 years of experience

- Operating in several sectors
- Ranked as 182nd in the list of top 500 of Industrial Companies
- Keep growing with it's 2200 employees



**kara** | HOLDING

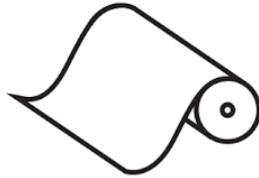


## Textile

Yarn, Fabric

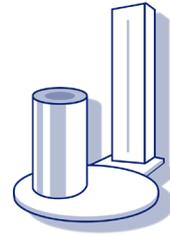
Knitting, Twisting

Fabric and Fiber Dying



## Nonwoven

Airlaid  
&  
Spunlace



## Plastic

Strech Film

POF Film



Lyocell Staple Fiber

**Ecocell** by Kara Fiber



## Kara Fiber Company

Kara Fiber, established in 2019, is the first lyocell producer company in Turkey. Our 20,000-tonne capacity mill is located in Gaziantep, one of the biggest industrial cities in the region. Mill capacity will be increased to 45,000 tonnes in 2024-Q1.

As one of the companies managed by Kara Holding, which operates in several sectors like textile, plastics, nonwoven etc., Kara Fiber produces natural and biodegradable lyocell fiber used in textile and hygiene products.





**Lyocell is arguably the most eco-friendly fabric. Not only is it sourced from organic and renewable sources, but it is processed via a low energy, low water, closed-loop system that recycles over 99.5% of the chemicals/solvents used in production, with the remaining 0.5% discharged as non-hazardous effluent.**

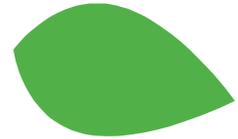


Cleaner future with ECOCELL™

# ECOCELL

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- Ecocell lyocell is a natural and biodegradable fibre, made from wood pulp sourced from **sustainable plantations**.
- Ecocell lyocell is used to produce high quality **textiles** and personal **hygiene** materials.
- Using a unique and high technology manufacturing process, Ecocell Lyocell fibre has **outstanding dry and wet strength, high uniformity and consistency, and superior quality**.
- It can be blended well with various textile fibres to create different fabric styles and characteristics for a wide downstream applications.



# Sustainability



- ❖ We are working with our wood fibre suppliers, brands and **Canopy** organization in order to promote sustainable forest management and the protection of ancient and endangered forests.

<https://www.karafiber.com/canopypolicy/>

- ❖ In 2022 Hot Button Report, Kara Fiber is achieved 28 buttons and awarded with Green Shirt by Canopy.

<https://hotbutton.canopyplanet.org/company/kara-fibres/>

- ❖ We are supplying wood fibre from **FSC** and **PEFC** certified plantations.
- ❖ Ecocell fiber is Oeko-Tex Standard 100 certified.

canopy





# Sustainability

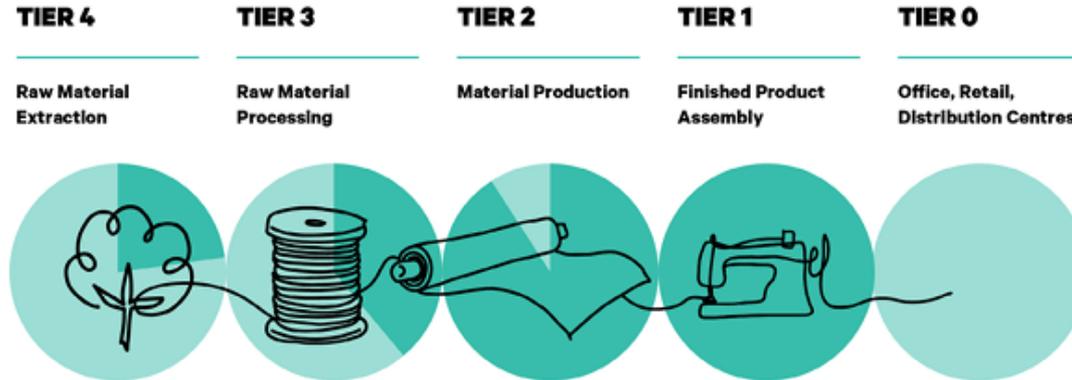
- ❖ All of our operations are conducted in compliance with ISO 9001 Quality Management System standards.
- ❖ ISO 14001, ISO 45001 and ISO 27001 standards are in place.
- ❖ Ecocell fiber is Oeko-Tex Standard 100 certified.
- ❖ See our all certifications at <https://www.karafiber.com/certificates/>



# Traceability

We can ensure traceability by using additive tracers (ink/rare earth flourescents).

Additive tracers facilitate better end-to-end traceability and have a broader use case in terms of meeting the users traceability objectives.



GRAPHIC SHOWING THE TEXTILE SUPPLY CHAIN TIERS: TIER 4 TO TIER 0

# Circular Economy

We also support the [CanopyStyle Next Generation Vision for Viscose](#). In order to proportionally contribute to the collective goal whereby 20% of all man-made cellulosic fibre (MMCF) produced (or 1.38 million tons) is made from Next Generation feedstock content, we have been collaborating with Canopy, brands, suppliers and innovators for increasing the use of alternative fibres within our current facility.

To be able to support [Next Generation Solutions](#), we are aiming to achieve:



August 2022

- Investing in R&D for use of alternative fibres

December 2022

- Initiating feasibility and technical testing of NextGen fibres

August 2023

- Launching at least one NextGen product on commercial scale (either purchasing or piloting)

December 2024

- Obtaining 20% of our pulp feedstocks from NextGen fibres

# Eco-Friendly Production

- It is manufactured using closed-loop technology, requiring minimal chemical input and less water (compared to other viscose fibers) during the production process.
- Production of Ecocell Lyocell involves modern methods, which require less energy than traditional viscose production.
- Made from wood pulp sourced from [certified forests](#).



# The Stages of EcoCell



# Closed-Loop Production System



**99,5 %**  
of the solvent  
used in process is  
recovered.

# Ecocell Product Range

			ECOCELL Lyocell 1,3 dtex 38mm	ECOCELL Lyocell 1,5 dtex 38mm	ECOCELL Lyocell 1,7 dtex 38mm
	<b><u>Test Method</u></b>	<b><u>Unit</u></b>	<b><u>Range</u></b>	<b><u>Range</u></b>	<b><u>Range</u></b>
<b>Titer</b>	ISO 1973	dtex	1.17 - 1.43	1.35 - 1.65	1.53 - 1.87
<b>Titer</b>	ISO 1973	den	1.05 - 1.29	1.22 - 1.49	1.38 - 1.68
<b>Tenacity at break (conditioned)</b>	ISO 5079	CN/tex	≥ 34	≥ 34	≥ 34
<b>Tenacity at break (conditioned)</b>	ISO 5079	g/den	≥ 3.84	≥ 3.84	≥ 3.84
<b>Elongation at break (conditioned)</b>	ISO 5079	%	≥ 10	≥ 10	≥ 10
<b>Cut Length</b>	DIN 53808-1	mm	36 - 40	36 - 40	36 - 40
<b>CIE Whiteness</b>	ISO 11475	-	> 70	> 70	> 70
<b>Moisture</b>	BISFA	%	9 - 13	9 - 13	9 - 13

# The Production Capacity of Ecocell

**20.000  
tons/year**

**Actual capacity  
in 2022**

**45.000  
tons/year**

**For the second step  
in 2024-Q1**

**100.000  
tons/year**

**Until 2026**

# Thank you!



**kara**

HOLDING