

COMFORT YARN

SoftCel



BAMBOO • MODAL YARN

BIODEGRADABLE



INHERENT
ANTIBACTERIAL



SOFT



LUSTROUS



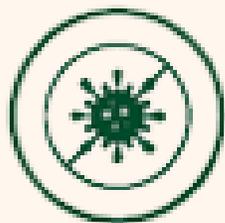
HIGH
ABSORBENT

SoftCel

- SoftCel is the brand name of blended yarn of speciality manmade cellulosic fibers.
- Blending – Intimate fibre blending.
 - Bamboo Viscose – 60%
 - Micromodal – 40%
- Spinning - SIRO COMPACT
- Fibre source:
 - Bamboo Tanboocel™ – Bamboo wood pulp, JIGAO, China.
 - Micromodal TENCEL™ – Beech wood pulp, Lenzing AG, Austria.

SoftCel

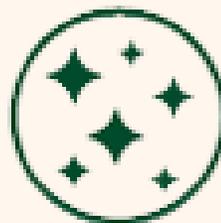
Advantages



**INHERENT
ANTI-BACTERIAL**



SOFT & STRONG



LUSTROUS

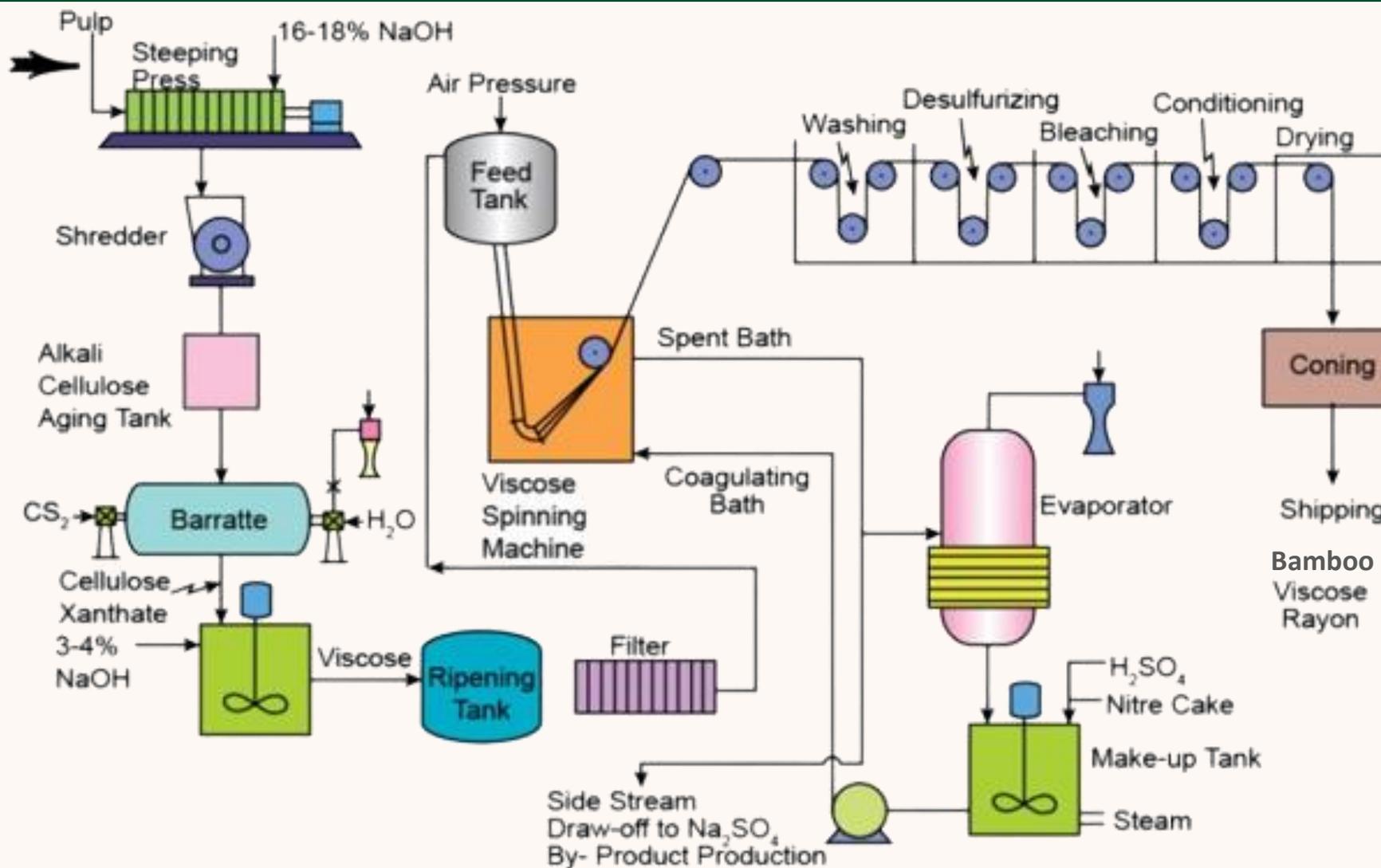


HIGH ABSORBENT

Fibre Specifications

BAMBOO VISCOSE	LENZING MICROMODAL
1.2D X 38MM	0.9D X 39MM

BAMBOO VISCOSE FIBRE - Spinning process



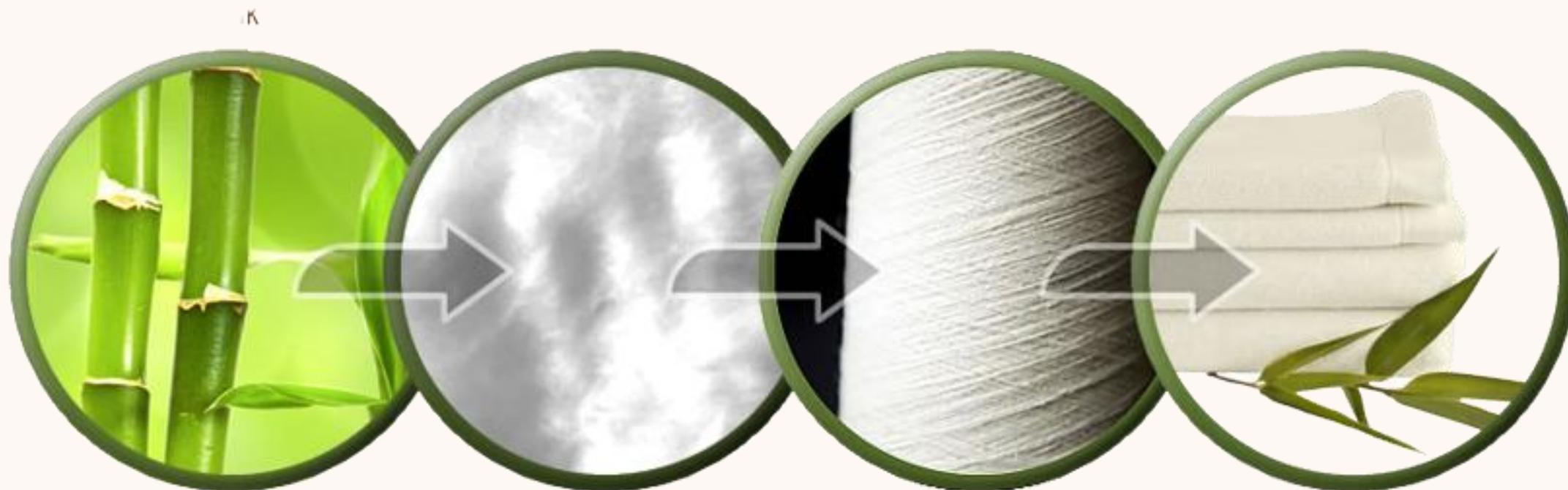
BAMBOO VISCOSE - Process

Bamboo stalk

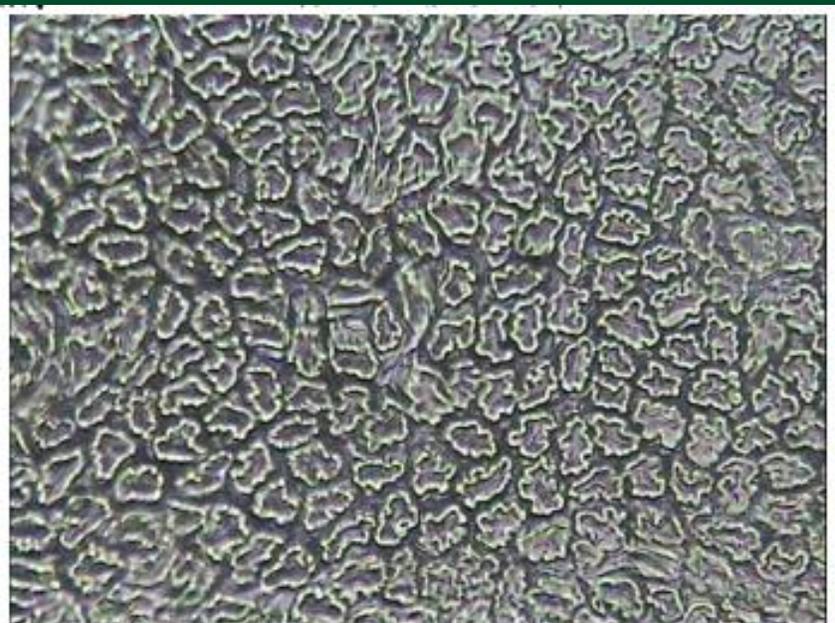
Processed Into fibre

Spun Into yarn

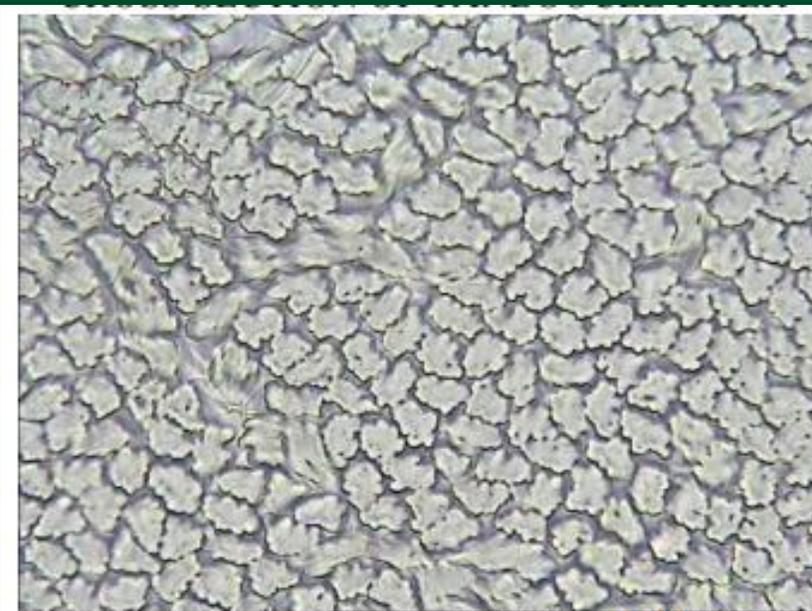
Knitted/Woven Into fabric



DIFFERENCE OF TANBOOCEL™ AND VISCOSE FIBER



天竹纤维横截面（光学显微镜 1000 倍）
CROSS SECTION OF TANBOOCEL FIBER



粘胶纤维横截面（光学显微镜 1000 倍）
CROSS SECTION OF VISCOSE FIBER

DID YOU KNOW?

Why bamboo is awesome



In the bamboo viscose fibre spinning:

- Caustic soda is used ,when making the pulp and cellulose, but the same is recycled



Advantages of Bamboo fabric



ultra-soft fabric



powerful insulating



UV protection



breathable



moisture wicking



good for sensitive skin



good for hot weather



anti-bacterial



prevents wrinkles



sustainably grown crop



河北吉藁化纤有限责任公司
HEBEI JIGAO CHEMICAL FIBRE CO., LTD.

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天竹纤维 TANBOOCEL BAMBOO FIBER

1、天竹纤维生产过程中使用哪些化学药品及安全防护措施:

what chemicals and safety protection measures are used in the production process of tanboocel bamboo fiber

天竹纤维生产过程中使用的化学成分有: 碱、溶剂、酸浴, 天竹纤维生产使用竹浆粕与碱反应产生碱纤维素, 竹碱纤维素在一定条件下溶于溶剂中, 形成纤维素溶液, 该溶液经过过滤提纯、熟成、脱泡, 在酸浴中析出竹纤维素和溶剂。碱和酸浴采用密闭管路输送。溶剂采用水封和密闭管路输送, 加入时采用真空状态下加入, 在密闭反应釜中进行反应。溶剂通过集束、蒸煮进行回收, 重新用到生产线上。由于再生过程中挥发出一小部分废气, 通过废气燃烧装置进行处理。整个生产过程中均有空调换气系统, 并确保管路无泄漏。

The chemical composition of bamboo fiber in production process include: Alkali, solvents, acid bath, Bamboo fiber production use bamboo pulp and alkali produce alkali cellulose, bamboo alkali cellulose in a certain conditions soluble in solvent, cellulose solution, this solution formed by filtering purification, cooked, deaeration, In acid bath of exhalation bamboo cellulose and solvents. Alkali and acid bath enclosed pipeline transportation. Solvent take storage and airtight pipeline transportation, when join in we use vacuum state, and reacting in the airtight reaction kettle. Solvent through the cluster, cooking for recycling, re-used in the production line. Because the regeneration process volatile out a small part of waste gas, through waste gas burning device to process, the whole production process are air-conditioning ventilation system, and ensure the pipeline without leakage.



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2、工人防护办法: Workers protective measures

吉藁公司通过GB/T19001-2000, GB/T24001-1996, GB/T28001-2001质量、环境、职业健康一体化认证, 对危化品贮罐采用密闭封存, 并在贮罐边沿按规定砌有围堰。溶剂贮罐区按国家规定与生产区进行隔离, 全体在岗职工及管理人员均通过安全培训。公司每月发放一次相应劳保用品, 以保证工人免受危害, 重点岗位每年进行两次应急演练。

JiGao company passed GB/t19001-2000, GB/T24001 1996, GB/T28001-2001 quality, environment and occupational health and integration of authentication, the use of hazardous chemicals, closed storage tanks and assemble the required edge in the tanka cofferdam. according to the state regulations Solvent storage area and production in isolation, all on-the-job worker and management personnel all through the safety training. Company a monthly release corresponding labor protection supplies, to ensure that workers from harm, key posts twice each year for emergency drill.

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天竹纤维生产工艺有别于普通粘胶纤维的环保方法:

The different Eco-ways from TANBOOCEL fiber's Production Process and general viscose:

1、木质素被综合利用。

The lignin is comprehensive utilization

2、碱回收循环利用。

Recycling of alkali

3、过滤周期较长，碱可完全回收再利用。

A long time for filtration, all alkali can be Recycled

4、废气回收后采取冷却凝固或者燃烧的方法处理。

The recovery exhaust gas is used for condensation and burning.

5、废水处理过程中加入了生物霉，处理后的水可直接用于农业的灌溉。

The waste water is processing with Vitreoscilla Ferment, treated water can be used for Irrigation farming



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区别 difference

一、天竹纤维特性 Properties of TANBOOCEL bamboo fiber

1 吸湿透气 moisture absorption and air permeation

天竹纤维内部布满了大大小小的椭圆形空隙，可以在瞬间吸收并蒸发大量的水分。由于纤维的高度中空，被业内专家称为会呼吸的纤维。天竹纤维的吸湿、放湿、透气等性能居各大纺织纤维之首。春秋季节使用天竹纤维产品，会使人感到特别的凉爽、透气；冬春季节使用，即能排除体内多余的热气、水分，不上火、不发燥，又能使人倍感温暖和舒适。

TANBOOCEL section is full of big or small elliptical holes through which large amount of moisture can be absorbed and vaporized instantly, because of the highly hollowness of the section, it is called the breathable fiber, the functions of moisture absorption, moisture releasing, air permeation and so on of tanboocel are all at the topmost of various textile fibers. tanboocel products can make you cool with air permeability in summer and autumn, and expel redundant intrinsic heat and moisture in winter and spring, mak you feel warmer and more comfortable

2 天然保健 Natural health protection

本草纲目中对竹子的药用及保健功能给予了充分肯定，竹元素中的抗氧化化合物能有效清除体内的自由基和酯类过氧化合物，并能阻断强致癌物质亚硝酸氮化合物，不仅能提高肌体免疫能力，还具有滋润皮肤和抗衰老的功效。

Compendium of materia medica adequately affirms the pharmaceutical use and health protection of bamboo. the oxidation resistant compound in bamboo can effectively expel the intrinsic free radical and ester peroxides of the human body, and can interdict the ammonia nitrite of cancerogenous substance. it can not only improve the immunological competence, but also has effect on moistening skin and anti-senium.



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3 持久抑菌 Permanent bacteria repellency

相同数量的细菌在显微镜下观察：细菌在棉、木浆纤维制品上会大量繁衍，而在天竹纤维制品上则会在 24 小时后细菌明显减少，因此，天竹纤维具有天然的抑菌效果。经过 50 次洗涤后，天竹纤维抑菌效果不变，与添加抗菌剂的纤维具有本质区别，这种独特性能使其在新型纤维中脱颖而出，为人类献上更健康的世界。

Microscopic observation shows that the same amount of bacteria can largely be reproduced on cotton or wood fiber products but they will be reduced on tanboocel product after 24 hours. therefore, tanboocel has natural effect on bacteriostasis and antibiosis. and after repeated washing-up, tanboocel still has well effect on bacteriostasis and antibiosis, which is different from the fiber added with antimicrobial in substance, the exclusive performance of the fiber makes it be outstanding in various new fibers and can supply a healthier word to people

4 柔软滑爽 Softness and smoothness

天竹纤维细度细、亮度好、稳定均一、手感柔软、具有独特的回弹性，其织物色彩亮丽、悬垂性好、柔软滑爽，比棉还软，具有独特的丝绒感。

TANBOOCEL has the features of fine fineness, favorable brightness, favorable homogeneity, soft hand feeling and special rebound elasticity. the fabrics made from tanboocel have the features of beautiful color, excellent drapability, softer than cotton and smoothness with special feeling like silk



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二、天竹纤维与粘胶纤维区别 Difference between TANBOOCEL bamboo fiber and viscose fiber

1 圆度 Circular

天竹纤维横截面圆度在 40% 左右，粘胶纤维横截面圆度在 60% 左右
 The cross section roundness of tanboocel bamboo fiber is about 40%, the viscose fiber is about 60%

2 空隙 elliptical holes

在 1000 倍显微镜下观察天竹纤维的横截面布满了大大小小的椭圆形空隙，而且现象非常明显，粘胶纤维却没有。

In 1,000 times a microscope, TANBOOCEL section is full of big or small elliptical holes, and phenomenon is clearly evident, but viscose fiber is not.

3 白度 whiteness

天竹纤维白度一般在 78% 左右，粘胶纤维白度在 82% 以上

The whiteness of TANBOOCEL bamboo fiber is about 78 percent, viscose fiber is above 82%

4 密度 density

天竹纤维密度一般在 1.46g/cm²，粘胶纤维密度在 1.50-1.52 g/cm²。

The density of tanboocel bamboo fiber is 1.46g/cm², the viscose fiber is 1.50-1.52 g/cm²

5 溶解度 solubility

天竹纤维的溶解度比粘胶纤维要大，天竹纤维在 55.5% 的硫酸溶液中的溶解度为 32.16%，粘胶纤维为 19.07%。

The solubility of bamboo fiber is bigger than viscose fiber TANBOOCEL Bamboo fiber in 55.5% sulfuric acid solution for the solubility 32.16%, viscose fiber for 19.07%.

LENZING MICROMODAL

Botanic Origin

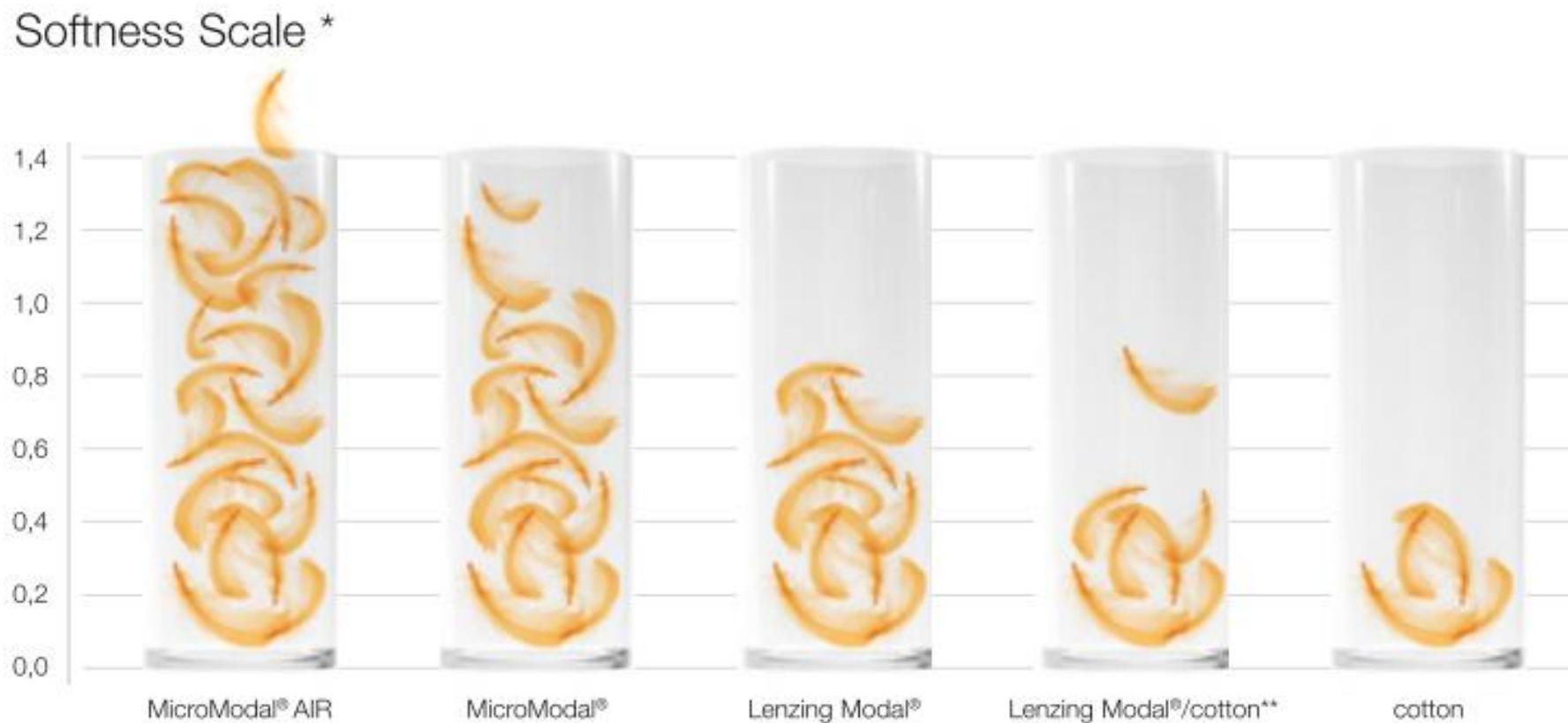
TENCEL™ Micromodal fibers are derived from sustainable wood, sourced from sustainable forests in Austria and neighboring countries, harvested from certified and controlled sources following the stringent guidelines of the Lenzing Wood and Pulp Policy.



Lenzing Micromodal Advantages

- Flexible.
- Softer in nature.
- Durable.
- Shock-absorbent.
- Affordable.
- Easy maintenance.
- Odourless.
- Resists pilling, fading, wrinkling, and losing its shape.

Lenzing MicroModal Softness Scale



* The softness was measured according to the Kawabata method (Kawabata Evaluation Systems for Fabrics).

** 50/50 %



CERTIFICATES



河北吉藁商贸有限公司
HEBEI JIGAO TRADING CO. LTD

河北省石家庄市藁城区市府路东段路

The Southeast Of Shifu Road, Gaocheng District, Shijiazhuang City, Hebei Province, CHINA

Certificate of Analysis with no hazardous dye

INVOICE NO.: JGHX220519T

DATE: 2022-05-19

WE HEREBY CERTIFICATED THAT TANBOOCEL BAMBOO FIBER IS NON-HAZARDOUS DYE FIBER.

Physical Parameters of TANBOOCEL JIGAO 100% BAMBOO FIBER

SPEC:1.33DTEX/38MM		LOT:20220506-1
Testing Condition:		Temperature:21.3
		Relative Humidity:63
ITEM		result
Dry Tensile Strength (乾強度)	CN/DTEX	2.35
Dry Elongation at Break (乾伸率)	%	18.5
Wet Tensile Strength (濕強度)	CN/DTEX	1.30
Linear Density Percentage of Deviation (線密度偏差率)	%	+0.90
Percentage of Length Deviation (長度偏差率)	%	+0.6
Overlength Staple Fiber (超長率)	%	0.1
Overcut Fiber (倍長纖維)	mg/100g	0.5
Residual Sulfur (殘碱量)	mg/100g	6.9
Defect (疵點)	mg/100g	0.1
Whiteness (白度)	%	79.3
Coefficient of Dry Tenacity Variation (乾強變異係數)	cv/%	9.0
Oil-stained Fiber (油污黃纖維)	mg/100g	0
Moisture Regain (回潮率)	%	----
Rate (等級)		GRADE A

河北吉藁商贸有限公司
HEBEI JIGAO TRADING CO. LTD

段强年



Certificate

N° 257007/202202070638



Ecocert SA hereby confirms that:

HEBEI JIGAO CHEMICAL FIBRE CO.,LTD.

河北吉藁化纤有限责任公司

No.2 Dongning Road, Gaocheng District, Shijiazhuang City, HEBEI

PROVINCE-CHINA

中国, 河北省, 石家庄市, 藁城区, 东宁路2号

Has been audited and certified to the USDA organic regulations, 7 CFR Part 205

National Organic Program



For operation categories:

WILD CROPS

For the following product groups:

OTHER PERENNIAL CROPS

F61(NOP)v01 cn

Page 1/4

Once certified, a production or handling operator's organic certification continues in effect until suspended, suspended or revoked.



SCAN ME

Access the up-to-date official certificate

Certificate issued on 7 February 2022

Ecocert SA

BP 47 Lieudit Lamothe Ouest

32600 L'Isle Jourdain France

(+33) 5 62 07 51 09 - www.ecocert.com

Capital 444 400 € - SIREN 380 725 002 - RCS AUCH

Anniversary date: 1st August

when the certified operation must submit its annual update - this is not an expiration date

Effective date / date of 1st certification: 28 January 2022

F61(NOP)v01 cn

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Once certified, a production or handling operator's organic certification continues in effect until suspended, suspended or revoked.



SCAN ME

Access the up-to-date official certificate



MORIRIN
The Standard



Annex to the certificate

N° 257007/202202070638

HEBEI JIGAO CHEMICAL FIBRE CO.,LTD.

河北吉藁化纤有限责任公司

USDA organic regulations, 7 CFR Part 205 – National Organic Program

Products certified:

PRODUCT

> Other bamboo
Other 竹子

LABELLING CATEGORY

100% Organic

Certificate issued on 7 February 2022

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Annex to the certificate

N° 257007/20220207

HEBEI JIGAO CHEMICAL FIBRE CO.,LTD.

河北吉藁化纤有限责任公司

USDA organic regulations, 7 CFR Part 205 – National Organic Program

Sites covered:

Hebei Jigao Chemical Fibre Co.,Ltd.

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- > Baojia Village, Dajing Township, Jiangan County, Yibin City-SICHUAN PROVINCE-CHINA
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Certificate issued on 7 February 2022

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Capital 444 400 € - SIREN 380 725 002 – RCS AUCH



S.NO	PARTICULARS	2/60s SOFTCEL
1	ACT.COUNT	29
2	COUNT CV	1.3
3	MATERIAL & BLEND	SOFT CEL
4	STRENGTH	87
5	STRENGTH CV	3.95
6	CSP	2519
7	U %	7.72
8	CVM	9.74
9	1 MTR CV	3.06
10	THIN (-50%)/KM	0
11	THICK (+50%)/KM	1.5
12	NEPS (+200%)/KM	8.5
	TOTAL	10

Softcel Yarn Quality Technical Specification

THANK YOU

**Alakan Karuppannan,
Managing Director,
Hillsilver Exportss.**

 alakan@hillsilver.com

 **+91 9994426711**

HILLSILVER EXPORTSS

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