



Pioneering Innovations for a Sustainable Future

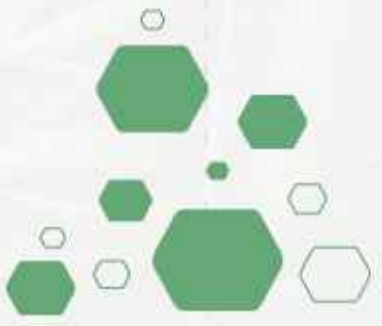


Birla Cellulose™, the Pulp and Fibre Business of Aditya Birla Group (ABG), is a leading **sustainability focused man-made cellulosic fibre producer**. Its nature-based fibres come from natural renewable sources and sustainably managed forests. Grasim Industries Limited, a flagship company of ABG, ranks amongst the top publicly listed companies in India and operates Indian facilities of Birla Cellulose™. Birla Cellulose™ operates 12 pulp and fibre sites globally that apply closed-loop processes and environmentally efficient technologies that recycle raw materials and conserve natural resources. It's five global advanced research centers are equipped with state-of-the-art facilities and pilot plants. It's new generation innovative products like Livaeco by Birla Cellulose™ Liva Reviva, Birla Excel and Birla Spunshades are designed with superior sustainable credentials. With an aim to create bigger and broader impact, Birla Cellulose™ collaborates actively with its value chain partners and works closely with organizations like, Canopy, Sustainable Apparel Coalition (SAC), Zero Discharge of Hazardous Chemicals (ZDHC), Changing Markets Foundation, Textile Exchange, Fashion for Good amongst others to continually learn and apply the best practices within its global operations and across its value chain. Birla Cellulose™ fibres find applications across multiple segments such as textiles, home furnishings, non-woven products and technical textiles.



The Journey from forest to fashion

Birla Cellulose fibres are **100% plant based**, made from wood pulp, sourced from sustainably managed forests and manufactured in plants that adhere to highest global norms.



Our Sustainability Credentials

Responsible Sourcing
2024 33 Buttons
30-35 buttons

Responsible Manufacturing
Higg Index 96%

Sustainable Products & Circular economy
OEKO-TEX STANDARD 100
USDA CERTIFIED BIOBASED PRODUCT

Canopy Hot Button Ranking
33 BUTTONS

Sustainable Apparel Coalition

ZDHC CONTRIBUTOR

Our Sustainability Framework

Birla Cellulose™ has five-pillars of sustainability strategy:



Responsible Sourcing: forestry and wood

Birla Cellulose™ has a comprehensive best-in-class forestry management system. The policies are compliant to global standards & partakes in conservation of endangered forests, High Conservation Value (HCV) forests & biodiversity.



Birla Cellulose has a stringent 'Wood Sourcing Policy' and procures wood & pulp following the global standards such as FSC® or PEFC.

The business engages closely with leading not-for-profit Canopy based in Canada for its wood sourcing practices. We have achieved the 1st position in Canopy's Hot Button Report 2023 and retained the 'Dark Green Shirt' for the 4th consecutive year. This rating is the result of our continuous efforts on the conservation of ancient and endangered forests, and robust initiatives to scale circular business model.

Responsible Manufacturing

Responsible Manufacturing is the mainstay of our business and this is achieved by adapting the best available technologies, applying benchmark best practices and strengthening of the closed-loop manufacturing processes.

Valuable Partnerships

Valuable Partnerships is our endeavour to work together with our stakeholders, understand each other's expectations and obligations and convert them into meaningful long-term partnerships for shared benefit.

We also collaborate actively with global benchmark organizations on sustainability such as **Sustainable Apparel Coalition, Canopy, Zero Discharge of Hazardous Chemicals (ZDHC)**, Textile Exchange, and other global institutions to apply their best practices in our value chain.

Sustainable Products

Sustainable Products are the outcomes when we listen to our customers and give them innovative solutions, while minimizing the negative impact on human and environment health and promote circularity.

Our fibres have been crafted to provide **excellent sustainable advantages** like reduction of greenhouse gas emissions, effluent discharge, water consumption as well as accommodate the usage of recycled textile waste.

Social Responsibility

Social Responsibility is a way of life and aims for inclusive growth and development of the communities, our employees, our partners and the under-developed section of society who need it the most.

Guided by the **'We Care' philosophy** of the Aditya Birla Group (ABG), Birla Cellulose's socio-economic interventions have helped to transform the lives of communities.

Birla Cellulose's projects focus on education, healthcare, sustainable livelihood, infrastructure development and social reform, epitomizing a holistic approach to inclusive growth.



GreenTrack™

Birla Cellulose provides an end-to-end traceability solution powered by blockchain technology - GreenTrack™ Fibre Traceability platform.

GreenTrack™ offers 2-fold provenance tracking: Value Chain Traceability & Source Verification

Value Chain Traceability with GreenTrack™

GreenTrack™ provides live mapping of the material journey from Forest to Fashion which enables brands real-time access to the chain of custody at every stage of the production process across the complex textile value chain, which can be further extended to consumers through a simple scan of the QR code.

Digital mapping using blockchain technology



Source Verification through Molecular Tracer

Unique molecular additive inside the fibre for source verification at any stage – fibre, yarn, fabric & garment, negating any possibility of counterfeit or dilution.

Source verification via
Unique Molecular Tracer in the fibre



Our Textile Portfolio

Birla Viscose

Birla Viscose is a nature based fibre that embodies the essence of sustainability. This fibre is 100% plant based, made from wood pulp, sourced from sustainably managed forests and manufactured in plants that adhere to highest global norms on environmental responsibility.



Benefits

- 100% Plant Origin
- Soft Feel
- Skin Friendly
- Moisture Absorption
- Breathability
- Longlasting Shine
- Lightweight

Birla Viscose EcoSoft

Birla Viscose EcoSoft is a new variant of viscose, made exclusively from bamboo pulp. Bamboo being one of the fastest growing species, is widely considered less resource intensive to cultivate versus other natural fibres and hence increasingly seen as an eco-friendly solution for textile needs.

EcoSoft fibres are an advancement over generic viscose fibres, offering higher durability & better moisture management. The resultant fabrics allow for high breathability, aiding in thermo-regulation. They are also characterized by soft textures and are light in weight.

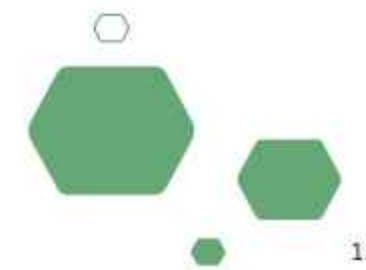
Birla Viscose EcoSoft is embedded with a molecular trace which helps in source verification, ensuring transparency and authentication of the source.

Benefits

- Moisture Management providing comfort
- Breathable
- Soft & Silky

Product Portfolio

| Sustainability Credentials | Viscose | Viscose EcoSoft |
|----------------------------|---|-----------------|
| FSC® | ✓ (Available on-demand) | ✓ |
| EU BAT | ✓ (Applicable to plants in Vilayat, China and Thailand) | -- |
| GreenTrack™ | -- | -- |
| Unique Molecular Tracer | -- | ✓ |



Livaeco

Eco-enhanced Viscose (Livaeco) is made from pulp procured from sources that are certified by the **Forestry Stewardship Council (FSC®)** and follows **EUBAT Standards** that can be tracked across the entire journey from source to the finished garment. Eco-enhanced Viscose fibres contain a unique molecular tracer which helps in source verification across the value chain. A complete information on the journey of fibre from forest to fashion is available through a unique **QR Code** which can be made available to the consumer conveniently. Our blockchain technology-based tool – **GreenTrack™** is used to trace upward and downward value chain.

Now available in black and navy blue dope-dyed variants.



| Sustainability Credentials | Livaeco (Eco-enhanced Viscose) |
|----------------------------|--------------------------------|
| FSC® | ✓ |
| EU BAT | ✓ |
| GreenTrack™ | ✓ |
| Unique Molecular Tracer | ✓ |

Product Portfolio

Benefits

- 100% Plant Origin
- Soft Feel
- Skin Friendly
- Moisture Absorption
- Breathability
- Longlasting Shine
- Lightweight



Livaeco Modal

Livaeco Modal represents the second generation of regenerated cellulosic fibres offering significantly higher performance & benefits. Birla Modal fibres are **100% plant based**, made from wood pulp, sourced from sustainable managed forests and manufactured in plants that adhere to highest global norms on environmental responsibility.



Product Portfolio

| Sustainability Credentials | Eco-enhanced Modal | Eco-enhanced Micro Modal |
|----------------------------|--------------------|--------------------------|
| FSC® | ✓ | ✓ |
| EU BAT | ✓ | ✓ |
| GreenTrack™ | ✓ | ✓ |
| Unique Molecular Tracer | ✓ | ✓ |

*MicroModal fibres are specialized fibres with denier of 0.9 – 1.0.

Benefits

- 100% Plant Origin
- Safe For Planet
- Closed Loop Process
- High Wet Modulus
- Moisture Absorption
- Soft Feel
- Longlasting Shine
- Skin Friendly



Birla Excel

The third generation in man- made cellulosic fibre, **Excel**, a **lyocell fibre is truly environment friendly and is made through a unique closed loop process with 99.7% solvent recovery.**

Excel fibre is produced by using **solvent spinning process** which is entirely different from the viscose and modal processes. There is a direct dissolution of cellulose or pulp in an organic solvent called **N-Methyl Morpholine N-oxide (NMMO)** without use of any other chemicals/solvents and hence there are no gaseous emissions from the process.

EcoExcel is an eco-enhanced variant of Lyocell crafted with the highest global environmental standards and comes with a **high LCA score.**



Product Portfolio

| Sustainability Credentials | Excel | EcoExcel |
|----------------------------|-------|----------|
| FSC® | -- | ✓ |
| GreenTrack™ | -- | ✓ |
| Unique Molecular Tracer | -- | ✓ |

Benefits

- 100% Plant Origin
- Safe For Planet
- Strongest Cellulosic Fibre
- Moisture regain is 2x higher compared to cotton
- Skin Friendly due to its smooth surface coupled with high water absorbency
- Excellent Lustre & High Colour Depth
- Breathable
- High Dimensional Stability with wet to dry tenacity





Benefits



100% Plant Origin



Soft Feel



Skin Friendly



Fade Resistant



Longlasting Shine



Safe For Planet

Birla Spunshades

Birla Spunshades represent our dope-dyed range of viscose fibres that offer flawless drapes, impeccable fit, breathability while keeping you comfortable always. **Our unique Colour-Lock™ technology makes fabric fade-resistant and ensures best in class colour consistency even over long periods of usage.**

Product Portfolio

| Sustainability Credentials | Spunshades | Spunshades Eco-Enhanced |
|----------------------------|------------|---|
| FSC® | -- | ✓ |
| EU BAT | -- | ✓ (Applicable in specific production sites) |
| GreenTrack™ | -- | ✓ |
| Unique Molecular Tracer | -- | -- |





Liva Reviva

LIVA Reviva are fibres that uphold the principle of circular economy and empowering a new era of sustainable clothing. LIVA Reviva comprises of upto 30% textile waste blended with wood sourced from FSC® certified forests, thus, following the principles of Sustainable Forestry Management.

Fabrics made with these fibres are characterized by their flawless drapes, impeccable fit and breathability while keeping you comfortable always. LIVA Reviva is available in two variants – LIVA Reviva Viscose and LIVA Reviva Excel (Lyocell).

Liva Reviva made with Circulose is available with 30% recycled pulp. It comes with a RCS certificate, is traceable and can be mapped with GreenTrack.

Benefits



A grid of six icons with corresponding text labels, all in a light green color. The icons are: 1. A plant growing in a circle with arrows, labeled '100% Plant Origin'. 2. A hand holding a leaf, labeled 'Soft Feel'. 3. A hand holding a flower, labeled 'Skin Friendly'. 4. A globe held in two hands, labeled 'Safe For Planet'. 5. A circular arrow, labeled 'Promotes Recycling'. 6. A star in a circle, labeled 'Brilliant Shine'.



SaFR™ Flame Retardant Fibres

SaFR™ fibre is a sustainably produced inherently flame - retardant cellulosic fibre. This fibre is 100% plant based, made from wood pulp, sourced from sustainably managed forests and manufactured in plants that adhere to highest global norms on environmental responsibility.



Benefits

Flame Retardant

Breathable

Skin Friendly

Moisture Management
providing comfort



Fibre Portfolio

2.0dx51mm* | 1.5x51mm* | 1.5dx38mm*

*Available on demand

Fibre Properties (Applicable to some available variants)

| Denier | Tenacity | Elongation |
|----------|----------|------------|
| 1.8-2.0 | >2.8 | >13 |
| 1.42-1.6 | >2.8 | >13 |

SaFR™ fibre properties are equivalent to viscose fibres. Standard 100 OEKO-TEX - **SaFR™** fibre is OEKOTEX certified and listed on ACP.

LAPF LIVA Accredited Partner Forum

At Birla Cellulose, we understand the importance of partnerships to create a sustainable and prosperous business. That's why, we've created a platform that brings together a diverse and ever-expanding network - LIVA Accredited Partner Forum (LAPF).

LAPF is a one-of-its kind consortium of over 450+ Value Chain Partners from India producing best in class Viscose, Modal and Lyocell based yarns and fabrics.



Technical Support



Marketing and Buyer Link Support



Market Intelligence Support



Design and Development



Sourcing Support

What we do

At LAPF, we make sourcing quality products a stress-free, transparent and seamless experience providing direct access to buyers with LAPF partners through our expansive network and our one-of-a-kind digital marketplace that let's you experience our fabrics like never before.



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Jawa Barat 40132, Indonesia



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Our commitment to the environment and to our customers has always been strong. Today, the alignment of values between them is what drives us to bring new and better products to our industry. With our global presence throughout the entire value chain- from plantation to pulp, to fibre and to fashion - we, through our business development platforms, facilitate our value chain partners (spinners, weavers, processors and garmentors) to build business bridges across geographies.

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