

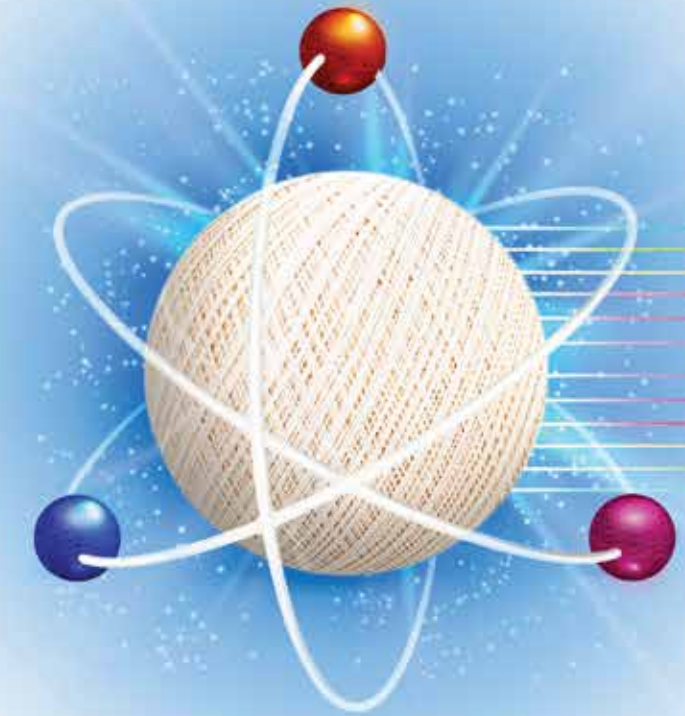


**Textile Research and Application Development Centre**  
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Because there's more to fibre  
than meets the eye.



**TRADC**





# Meet Your Partners In Innovation

There are those who ask why, and those who ask why not.  
Those who go with the tried and tested, and those who embrace the new.  
Those who see things as they are, and those who imagine what they can be.

For the first set of people, life goes on as usual.  
But the second – they deserve something special. Something extraordinary.  
That's why we built the only facility of its kind in the world for them. For You.

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The Textile Research and Application Development Centre (TRADC)







# We built it, but it belongs to you

The Textile Research and Application Development Centre (TRADC) brings innovation to the textile and fashion industry. In addition, TRADC offers many services that assist you - our value chain partners, in bringing cellulosic fibre products to the market.

## Our Vision

To facilitate the Textile Industry for achieving Global Leadership by innovating design and products with technological research and application development.

## Our Mission

To provide a comprehensive Textile Research and Development setup for facilitating innovation, quality up-gradation & efficiency improvement in fibres, yarns and fabrics, and to promote the Textile Brand globally.

## Truly, one of a kind



State-of-the-art research and development centre set up with an investment of US\$ 15 million



One of its kind in the world: A total solution provider to the global man-made cellulose textile, clothing & made-ups industry



Deploys the best of diverse technologies for small sampling, mid-bulk & bulk in yarn, fabric, apparel & made-ups for different applications



Driven by a strong team of research scientists, respected in the industry and textile community

## Making Business Sense

Birla Cellulose believes in total value chain services and has a team to facilitate the services of TRADC

- Business Development Managers to bring market insights and carry forward TRADC innovation to the value chain
- Technical Managers at TRADC to research and deliver differentiated products and services
- Design & Development Team to bring creativity to the entire collection







# A walk through TRADC



Fibre Testing



Spinning



Weaving



Knitting



Textile Wet Processing



Garmenting



## Testing Facilities

Yarn Testing : Uster UT4, Uster Tensorapid4, Uster Quantum 2, Twist Tester & other yarn testing related inst., Friction tester.  
 Fabric Testing : Equipped with most of the instruments related to fabric testing.  
 Special Instruments : Air permeability tester, ASTM random tumbler, Tensile strength, Stretch growth, Seam slippage. Flammability tester, Digital scan microscope  
 Test Procedure : IS, AATCC, ASTM, BIS, ISO  
 Certificate Available : Confirm to ISO17025, NABL Certification



## Spinning

**Bulk Production**  
 Count Range: 10s – 100s single & two ply  
 Fibre Blends: Man made & natural  
 Lot Size: 2 kg -500 kg  
 Technology: Ring & OE  
 Other Features: Slub, Stretch, Double

**Pilot Plant**  
 Lot Size: 50gm per sample  
 Technology: Ring & OE



## Weaving

Weave: Plain, Twill, Dobby, Jacquard,  
 GSM Range 50gsm to 350 gsm  
 Technology: Airjet, Rapier, Projectile  
 Other Facilities: Sizing equipment, Sample warp, Single end sizing machine, Jacquard

**Pilot Weaving**  
 • CCI Sample Warper  
 • CCI Single end Sizing  
 • CCI Sample Loom  
 • Capability - 20 shaft dobby design  
 • 3 mts. Sample with 18" width



## Textile Wet Processing

**Bulk Production**  
 Dyeing Equipment : Package Dyeing, Carrier Dyeing, Soft flow, Air Flow for fabric, Cold Pad batch, Jigger & Garment dyeing.  
 Capacity : 2.50 kg to 150 Kg  
 Capability to Dye : Fibre, yarn, Fabric, Garment, Man made and Natural both, Woven & Knit.  
 Other Equipments : Singeing, Sanforizer, RF Dryer, Air tumbler, Stenter, Compactor, Digital Printer.

**Pilot Plant**  
 Dyeing Equipment : Package, Carrier & Jigger dyeing, Infrared Dyeing, Pot Dyeing, Automatic dye dispenser  
 Capacity : 200gm to 1 Kg  
 Other Equipments : Padder, Lab stenter, Hose knitting machine & Color Computer Matching System.



## Knitting

The hallmark of TRADC's knitting department is the technological versatility. We have both circular as well as flat knitting technology available with us. Circular knitted fabrics in a wide range of counts, structures and styling can be achieved.

**Circular Knitting Machine**  
 • Machine make – Mayer & Cie  
 • Machine Cylinder dia. – 30"  
 • Gauge can be changed as per need – 24/32  
 • No. of feeders – 96  
 • Plain, pique, fleece, pleating, mock rib structures & feeder striper possible.  
 • Spandex feeder attachment

**Matsuya Flat Knitting Machine**  
 • Machine Make – Matsuya.  
 • V bed flat knitting  
 • Gauge – 12s  
 • With two head system  
 • Multi color feeder system  
 • Spandex feeder attachment  
 • Flat knit rib fabric for collar, cuffs.



## Garmenting

Men's wear, Women's wear, Kids wear, Curtains, Bed Sheets, Pillow covers for woven + Knitted fabric  
 6 needle Embroidery, Swatch making etc.  
 Total capacity : 100 pcs including 10 pcs Knitted.



# With us, you are at the leading edge



## Product Perfection & Technology Transfer

Recipe formulation for innovative fabric designs are carried out and thereafter the product and process technology and know-how is transferred to the textile value chain.



## Reactive Orders From Customers

Pilot and 'scale-up-to-commercial' yarn quantities are routinely manufactured based on customer orders to facilitate bulk order fructification.



## New Fibre Development Support and Feedback

Fibre innovations like Birla Modal, Birla Excel, Flame Retardant, etc. are intrinsically studied for its benefits till garment and made-up stage, and feedback is given to main fibre plants.



## Research Projects & Training Services

Technical projects and training services for academics are imparted at the centre for updating and upgrading skills.



## Tests, Evaluation & Solution Services

With its testing facility and interpretation skills, the Centre offers in-depth testing analysis, evaluations and inferences based on logical reasoning and demonstration.



## Proactive Collections

Innovative yarns and fabric are developed for showcasing versatility of Birla Cellulose Fibres.



# Our support, every step of the way



## Testing

TRADC houses one of the finest laboratories in the country. Our ultra-modern facilities along with a range of research and application development equipment is used for yarn testing, fabric testing, colour value measurements and colour matching in order to understand our consumer's needs.



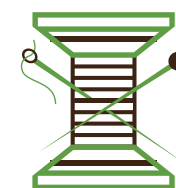
## Spinning

We work in tandem with our clients to develop effective spinning solutions with state-of-the-art equipment. This machinery is capable of handling almost all man-made cellulosic fibres and blends in ring and open-end spinning routes.



## Weaving

Unique requirements demand customised, co-created processes. Our weaving department is proud of its technological versatility, available in shuttle-less weaving. The best of projectile, positive and negative rapier and air-jet technology makes TRADC fabric a dream come true for our value chain partners.



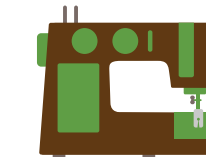
## Knitting

Through meticulous research we provide our clients with the capability to sample out designs with auto striping, pique, mock rib, and jersey in a single machine. We also achieve structures and styling with auto feeders to manufacture knitted fabrics.



## Textile Wet Processing

Our innovative wet processing technology is well-renowned. We believe in improving it with the help of our partners, so that we may offer superior dyed and finished products in fibre, yarn, fabric and garment forms.



## Garmenting

In order to develop breakthrough garmenting processes, we take into account the specific problems faced by our clients. Then we channel our cutting, styling, designing, sewing, buttoning and embellishment techniques accordingly.







# Welcome to the Studio

At Birla Cellulose TRADC, we let our garments speak for themselves. Our Lifestyle Studio, which displays Birla Cellulose fabrics and garments, is the star attraction of the centre. This enables us to facilitate consumer and trade appreciation along with feedback which helps us gain insight for further developments.





ADITYA BIRLA GROUP

## Aditya Birla Group

- A USD 41 billion (Rs 2,50,000 cr) MNC
- Operates in 36 countries
- Over 130 state-of-the-art manufacturing units
- Over 50% revenues from international operations
- Anchored by 120,000 employees belonging to 42 different nationalities
- Ranked No. 4 in the Global "Top Companies for Leaders" survey and ranked No. 1 in Asia Pacific for 2011 (Aon Hewitt, Fortune Magazine and RBL)
- Topped the Nielsen's Corporate Image Monitor 2014-15 for the third year running emerging as the Number 1 corporate – "Best in Class".



## Birla Cellulose

Birla Cellulose is a global brand that represents both, the balance of nature and the power of science. On one hand, our cutting edge technology keeps our partnerships with customers strong and on the other, eco-friendly innovations keep our conscience clean.

- Birla Cellulose is the umbrella brand and flagship of the Aditya Birla Group
- World leader in Regenerated Cellulosic Fibres (Viscose Staple Fibre)
- Established in 1954, Birla Cellulose is a trusted raw material partner of global textile and non-woven value chain.



**Birla Modal**



**Birla Viscose**



**Birla Excel**



**Birla Spunshades**