

SHIVPRIYA TEXCHEM · KNOWLEDGE SERIES

Cotton. The fibre India was built on.

Seed to lint. Lint to yarn. Yarn to half of everything India wears. A working guide to cotton — its grades, its process, its blends and its applications — and where it goes from here.

~24%

of global cotton output grown in India —
the world's largest area under cotton

27–44

mm staple range traded, from coarse desi
to imported extra-long staple

100%

natural, renewable and biodegradable
seed fibre



Bridging world-class spinning mills and your needs, since 2003.

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CHAPTER 01

What exactly is cotton?

Cotton is a natural cellulosic staple fibre that grows around the seed of the cotton plant. Its quality is set in the field — staple length, micronaire, strength and trash decide everything the spinner can do with it afterwards.

CATEGORY	STAPLE / GRADE	WHAT IT SIGNIFIES
Shankar-6 (Gujarat)	28–29 mm medium staple	India's workhorse export variety; the reference for medium counts
MCU-5 / DCH-32	30–38 mm long & extra-long	Fine-count spinning; DCH-32 is India's premium long staple
Imported ELS	Giza, Pima, 34–44 mm	Superfine 80s–120s counts; luxury shirting and voiles
Organic / BCI	Certification, not staple	Traceability programmes brands increasingly demand
Comber noil / waste	Short fibre	Rotor spinning, denim fill and recycled blends

Buyer's note. Cotton is the only major fibre priced by an agricultural market. Crop size, MSP policy, CCI procurement and global futures move your yarn price before the mill does anything. Contracting strategy matters as much as count selection.

Raw material

Seed hair of the cotton plant; ginned to separate lint from seed.

Fineness

Measured in micronaire; 3.8–4.5 is the spinning sweet spot.

Supplied as

Bales of ~170 kg, graded by staple, mic, strength and trash.

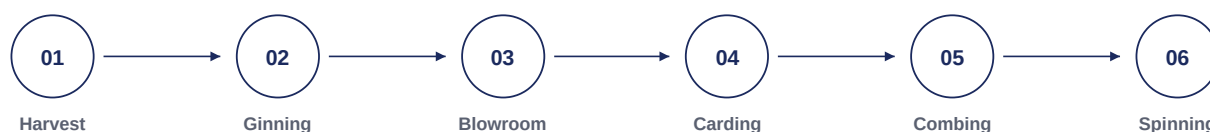
End of life

Fully biodegradable; recyclable mechanically into open-end yarns.

CHAPTER 02

Field to yarn

Cotton's process is mechanical, not chemical — the fibre arrives finished from the field. Everything after that is cleaning, aligning and twisting.



01 Harvest and ginning

Seed cotton is picked and ginned to separate lint from seed. Ginning quality decides trash and nep levels the mill inherits.

02 Blowroom

Bales are opened, mixed and cleaned. Bale management here decides shade and count consistency across the season.

03 Carding

Fibres are individualised into a sliver and short fibre removed. The card is rightly called the heart of the mill.

04 Combing (optional)

Removes short fibre and remaining neps for fine counts. Combed vs carded is the first quality fork in the road.

05 Drawing and roving

Slivers are doubled and drafted for evenness, then attenuated into roving for the ring frame.

06 Spinning

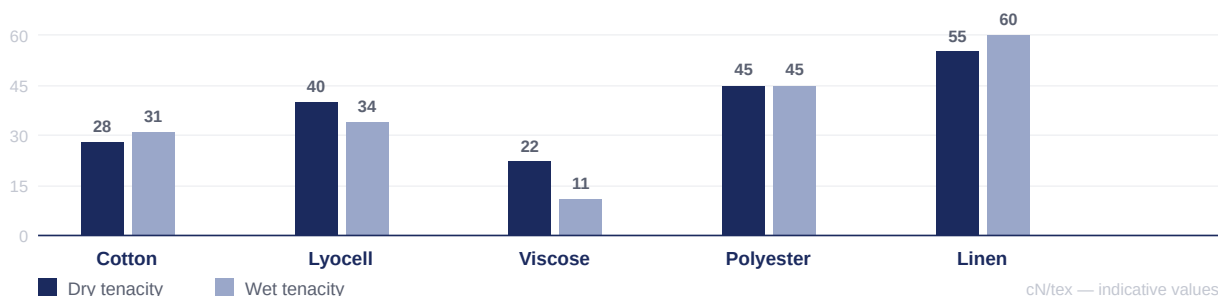
Ring, compact, rotor or vortex — twist is inserted and the yarn is wound. System choice sets the character of the yarn.

ROUTE	CHARACTER	BEST FOR
Carded ring	Fuller, slightly hairy, economical	Knits, towels, mid counts 20s–30s
Combed compact	Clean, strong, low hairiness	Fine shirting and premium knits 40s–100s
Open end / rotor	Bulky, even, lower strength	Denim, home textiles 6s–20s
Vortex	Low pilling, wash-stable	Knits and workwear 20s–40s

CHAPTER 03

What the fibre actually does

Cotton is the benchmark every other staple fibre is measured against — and unusually, it gets stronger when wet, which is why it survives decades of laundering.



PROPERTY	TYPICAL VALUE	COMMERCIAL MEANING
Dry tenacity	25–30 cN/tex	Comfortable spinning window across counts; strength rises with staple length
Wet strength	105–110% of dry	One of only two majors stronger wet — survives aggressive laundering
Elongation	6–8%	Low stretch; fabrics hold shape but crease readily
Moisture regain	7.5–8.5%	Absorbent and breathable; slow to dry versus lyocell
Handle	Soft, matte, familiar	The comfort reference for next-to-skin wear
Dyeing	Reactive, vat, indigo	Wide shade range; indigo on cotton is the entire denim industry
Shrinkage	Moderate	Needs compacting / sanforising for dimensional stability
Biodegradability	Full	Composts readily; strongest natural-fibre story in the market

Process caution for your mill. Contamination is cotton's biggest commercial risk — polypropylene strands and coloured fibre from harvest and ginning cause dyeing complaints months later. Insist on contamination-controlled lots for export programmes, and lock bale management discipline early.

CHAPTER 04

Cotton against the alternatives

A like-for-like view of the fibres competing for the same programme. Ratings are indicative and read horizontally, not as absolute laboratory values.

PARAMETER	COTTON	LYOCELL	VISCOSE	POLYESTER	LINEN
Origin	Cotton crop	Wood pulp	Wood pulp	Petroleum	Flax crop
Wet strength	Good — rises wet	Excellent	Poor	Excellent	Excellent
Moisture management	Good	Excellent	Very good	Poor	Excellent
Drape and lustre	Matte	Silk-like	Very good	Synthetic	Crisp
Price behaviour	Crop volatile	Premium, stable	Value	Lowest	Premium
Crease recovery	Poor	Good	Moderate	Excellent	Poor
Biodegradable	Yes	Yes	Yes	No	Yes
Brand pull	Strong, timeless	Strong, rising	Under scrutiny	Under pressure	Premium niche

The honest trade-off

Cotton's price is set by weather, MSP policy and global futures, not by the mill — and quality varies bale to bale in a way no man-made fibre does. Fine counts increasingly depend on imported ELS cotton.

The direction of travel

Cotton is not going anywhere — but the growth is moving to traceable, certified and blended cotton. BCI, organic and recycled-content programmes are becoming the entry ticket to export orders rather than a premium option.

CHAPTER 05

The world's largest cotton system

India grows more cotton than any other country by area, consumes most of it domestically, and runs the world's second-largest spinning industry on top of it. The system is vast — and policy-driven.

THE SOURCING LANDSCAPE

Gujarat

SHANKAR-6 BELT

The largest producing state and home of the S-6 medium staple that anchors Indian export yarn.

Maharashtra & MP

RAINFED BELT

Large rainfed acreage; yields swing with the monsoon and move the national balance sheet.

CCI & MSP

POLICY LAYER

Cotton Corporation of India procurement at MSP sets the floor under domestic prices.

Imported ELS

GIZA · PIMA · AUSTRALIA

Extra-long staple for 80s+ counts comes largely from imports; duty policy matters.

Demand is premiumising

Combed compact and contamination-controlled cotton earn a widening premium over commodity carded counts.

Traceability is the ticket

BCI, organic and regenerative programmes are moving from marketing to mandatory in export supply chains.

Denim runs on cotton

India's denim capacity is among the world's largest, and indigo-on-cotton remains its base.

Blends stretch the bale

PC, cotton-lyocell and cotton-modal blends deliver cotton's story at better economics and performance.

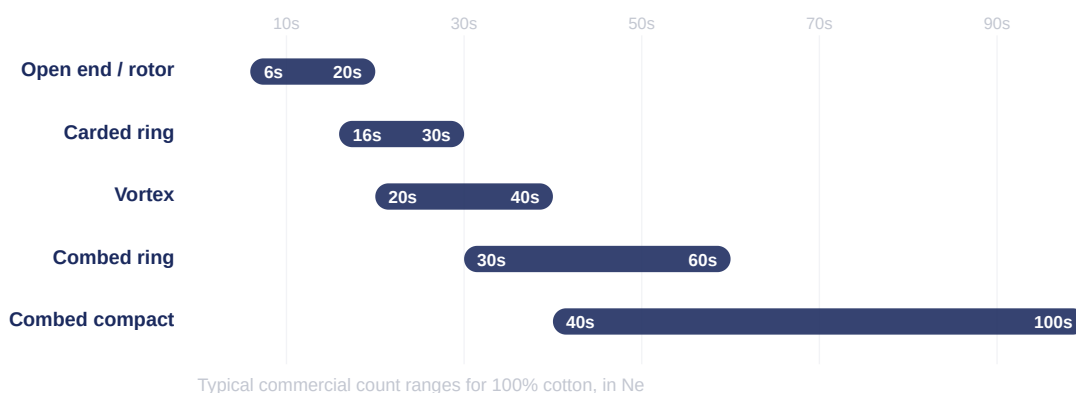
What this means for the yarn trade. Cotton yarn margins are made in procurement timing and bale management as much as in spinning. Working with mills that manage fibre buying professionally — and matching the right cotton to the right count — is where a trading partner adds real value.

All company and brand names referenced are the property of their respective owners and are used for identification and informational purposes only; no affiliation or endorsement is implied unless stated.

CHAPTER 06

100% cotton yarn: the reference fibre

Cotton spins on every system ever built — the choice of route decides hand, strength, hairiness and cost long before the fabric is designed.



YARN TYPE / SYSTEM	USUAL RANGE	WHERE IT FITS
Carded ring	16s – 30s Ne	Knits, towels, casual wovens; the volume segment
Combed ring	30s – 60s Ne	Shirting and finer knits with cleaner surface
Combed compact	40s – 100s Ne	Premium and export shirting; lowest hairiness
Open end / rotor	6s – 20s Ne	Denim and home textiles at commercial cost
Vortex	20s – 40s Ne	Wash-stable knits, workwear, low pilling

Fibre specification to order

- Staple length matched to count — 29 mm for 30s, 32+ mm for 60s and above
- Micronaire 3.8–4.5 for the spinning sweet spot
- Contamination-controlled lots for export and dyed programmes
- Certified BCI / organic / recycled where the buyer needs a claim

What decides yarn quality

- Bale management discipline across the season for shade consistency
- Card and comber settings — nep and short fibre removal
- Ring frame speed vs end-break economics
- Winding clearer settings for fault classification

CHAPTER 07

Blends: how cotton stays competitive

Blending lets cotton keep its comfort story while borrowing strength, stability or price from a partner fibre. PC remains India's single largest blended category.

BLEND	COMMON RATIOS	WHAT IT DELIVERS	PRIMARY END USE
Cotton / Polyester (PC)	52:48, 60:40	Durability, crease recovery and price stability with a cotton hand	Shirting, uniforms, workwear, sheeting
Cotton / Viscose	70:30, 60:40	Softer drape and better lustre at a modest cost	Knits, dress materials
Cotton / Lyocell	50:50, 60:40	Strength, drape and a stronger sustainability claim	Premium shirting, denim, knits
Cotton / Modal	50:50	Lasting softness in next-to-skin knits	Innerwear, loungewear
Cotton / Linen	70:30	Linen texture, easier spinning and price	Summer shirting, jackets
Cotton / Elastane	95:5 core spun	Stretch and recovery in a cotton fabric	Stretch denim, chinos, knits
Cotton / Recycled cotton	80:20, 70:30	Circularity claim with manageable strength loss	Denim, casualwear, home



The commercial logic in one line. Cotton is the hand every buyer already trusts. Blending protects that hand while fixing cotton's weaknesses — crease, shrinkage, price volatility — which is why blended cotton grows even when pure cotton is flat.

CHAPTER 08

Where cotton is being used

Cotton runs across every textile category India makes. The commercial question is never whether to use cotton — it is which cotton, which system and which blend.



Shirting and wovens

Combed compact poplin and oxford anchor the formal and casual shirting market.



Denim

Rotor and ring slub cotton with indigo — India's flagship cotton export category.



Knits and T-shirts

Carded and combed hosiery yarns feed Tirupur's global knitwear engine.



Innerwear

Combed cotton and cotton-modal dominate next-to-skin programmes.



Home textiles

Sheeting, terry towels and furnishing — Panipat and Karur run on cotton.



Activewear blends

Cotton-elastane and cotton-poly blends for comfort-led athleisure.



Medical and hygiene

Absorbent cotton, gauze and swabs; purity-grade bleached cotton.

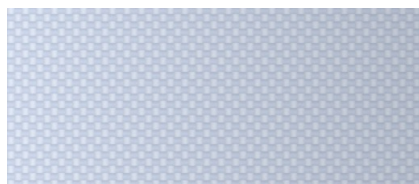


Industrial

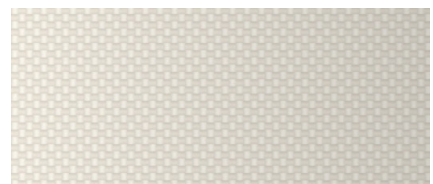
Canvas, tarpaulin, threads and cordage in coarse counts.



COMBED COMPACT · SHIRTING



RING SLUB · DENIM



CARDED · TERRY / HOME

Segment to watch in India. Traceable cotton. Export buyers are moving from “cotton” to “which farm, which gin, which certification” — and mills that can document the chain will take share.

CHAPTER 09 · OUR VIEW

Cotton stays the base — but the game moves to traceability and blends

Cotton will remain the largest fibre in the Indian wardrobe. The growth and the margin, however, are shifting to certified cotton and engineered cotton blends.

01 Demand is structural

Half of Indian textile consumption is cotton-based; domestic demand grows with income, not fashion cycles.

02 Policy shapes price

MSP, CCI procurement and import duty on ELS set the economics; monitoring policy is part of buying cotton.

03 Traceability becomes mandatory

EU due-diligence rules and brand sourcing policies are converting certification from premium to prerequisite.

04 Blends fix the weaknesses

PC, cotton-lyocell and cotton-elastane deliver crease recovery, stability and stretch cotton alone cannot.

05 Fine counts need ELS strategy

Premium shirting depends on imported extra-long staple; duty and currency risk sit inside the yarn price.

What to be realistic about

Crop and price volatility are permanent. Mills and buyers who hedge procurement and diversify fibre mix outperform.



HOW SHIVPRIYA TEXCHEM CAN HELP

Authorised agent and strategic partner to India's leading spinning mills since 2003, trusted by **2,500+ customers** across polyester, viscose, cotton, PC/PV, fancy and recycled yarns. For cotton and cotton-blend programmes we support mill identification and capability matching, count and blend development, sampling and trial lots, mill-direct commercial terms, and delivery through our pan-India network.

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