

SHIVPRIYA TEXCHEM · KNOWLEDGE SERIES

Viscose. The original man-made silk.

Wood to pulp. Pulp to the fibre that gave India its drape. A working guide to viscose staple fibre — its process, its properties, its blends — and how it holds its place as scrutiny rises.

130+

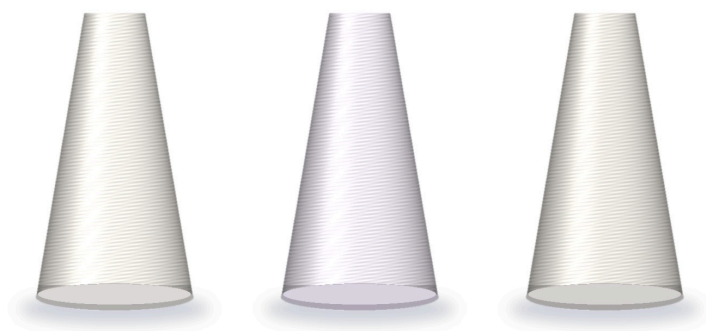
years since viscose became the first commercial man-made fibre

#1

Grasim is the world's largest viscose staple fibre producer

100%

wood-based, biodegradable cellulosic fibre



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

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CHAPTER 01

What exactly is viscose?

Viscose is a man-made cellulosic fibre regenerated from wood pulp via the xanthate route — cellulose is chemically converted, dissolved, then regenerated in an acid bath. It delivers cotton's chemistry with silk's drape at a value price.

GRADE	PRODUCER / BRAND	WHAT IT SIGNIFIES
Standard VSF	Grasim / Birla Cellulose (Liva)	The Indian benchmark; bright and dull, 1.2–1.5 dtex
Spun-dyed	Birla spun-dyed range	Colour locked in the fibre; no dyehouse, superior fastness
Eco grades	Livaeco, EcoVero (Lenzing)	Certified wood sourcing and lower-impact processing
Recycled-content	Liva Reviva	Viscose with pre/post-consumer cotton waste blended in
Imports	Indonesia, China	Landed alternatives; duty and quality vary by source

Buyer's note. Viscose is traded on shade lot discipline. Mixing fibre lots across a fabric programme shows as barre in knits and shade bands in wovens — hold one lot per programme, and insist on it from your spinner.

Raw material

Dissolving-grade wood pulp from certified plantations.

Process

Xanthate route with carbon disulphide; regenerated in acid.

Supplied as

Staple in bales, 1.0–1.5 dtex, 38 / 44 mm; bright or dull.

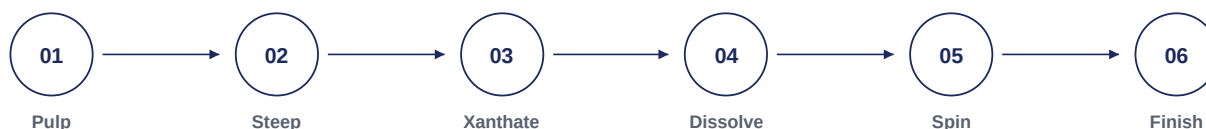
End of life

Biodegradable in soil and marine conditions.

CHAPTER 02

Wood to fibre: the xanthate route

Viscose is chemistry-heavy: cellulose is converted to a derivative, aged, dissolved, then regenerated. Modern integrated plants recover and manage the chemistry that once made the industry notorious.



01 Steeping

Pulp sheets soak in caustic soda, converting cellulose to alkali cellulose and pressing out excess lye.

02 Ageing and xanthation

Alkali cellulose is aged, then reacted with carbon disulphide to form cellulose xanthate.

03 Dissolving and ripening

Xanthate dissolves in dilute caustic into viscose dope, filtered and ripened to spinning viscosity.

04 Wet spinning

Dope is extruded into a sulphuric acid bath where cellulose regenerates into filaments.

05 Stretching and cutting

Filaments are stretched for strength, cut to staple, and desulphurised.

06 Washing and finishing

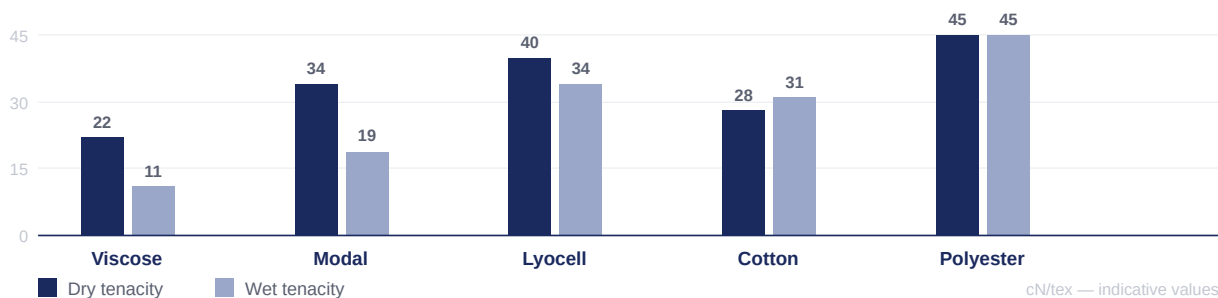
Fibre is washed, bleached, finished and baled. Effluent and gas recovery define a plant's compliance standing.

STAGE	VISCOSE ROUTE	LYOCELL ROUTE
Chemistry	Derivatised via xanthate with CS ₂	Direct physical dissolution in NMMO
Recovery	Partial; gas and effluent treatment critical	Closed loop, 99%+ solvent recovery
Cost	Lower — mature, huge scale	Premium
Result	Softer, weaker, fluid fibre	Stronger, more stable fibre

CHAPTER 03

What the fibre actually does

Viscose buys its beautiful drape with weak wet strength. Everything about processing and using viscose flows from that one trade.



PROPERTY	TYPICAL VALUE	COMMERCIAL MEANING
Dry tenacity	20–24 cN/tex	Adequate for most counts; gentle spinning required
Wet tenacity	10–12 cN/tex	Half of dry — the defining constraint in wet processing and laundering
Elongation	18–22%	Contributes to the fluid, forgiving hand
Moisture regain	12–13%	Highest of the majors; cool and absorbent
Drape	Outstanding	The reason viscose owns ethnic wear and dress material
Lustre	Bright to dull	Silk-like brilliance available without finishing
Dyeing	Reactive / direct	Deep, brilliant shades; excellent affinity
Shrinkage	High	Fabrics need controlled finishing; garments need care labelling

Process caution for your mill. Wet viscose is fragile. Low-tension dyeing, gentle hydro-extraction and realistic shrinkage allowances are non-negotiable — and customers must be told that a viscose garment is hand-wash or gentle-cycle. Most “quality complaints” on viscose are process and care failures.

CHAPTER 04

Viscose 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	VISCOSE	MODAL	LYOCELL	COTTON	POLYESTER
Origin	Wood pulp	Beech pulp	Wood pulp	Cotton crop	Petroleum
Wet strength	Poor	Moderate	Excellent	Good	Excellent
Drape	Outstanding	Excellent	Silk-like	Matte	Engineered
Moisture	Highest	Very good	Excellent	Good	Near zero
Price	Value	Mid	Premium	Volatile	Lowest
Shrinkage	High	Moderate	Low	Moderate	Minimal
Biodegradable	Yes	Yes	Yes	Yes	No
Scrutiny	Chemistry under audit	Moderate	Favourable	Favourable	Microplastics

The honest trade-off

Viscose is the value cellulosic: unbeatable drape-per-rupee, but weak wet, high-shrinkage and carrying a chemistry story that responsible-sourcing audits examine closely. Supplier selection is now part of the fibre choice.

The direction of travel

The category is bifurcating: certified, traceable viscose (EcoVero, Livaeco, spun-dyed) on one side, commodity imports on the other. Export-facing programmes are moving decisively to the certified side.

CHAPTER 05

India's viscose landscape

India is unusual: one world-leading domestic producer supplies most of the market, with imports filling the gaps. That concentration shapes pricing, allocation and lot discipline.

THE SUPPLY BASE

Grasim / Birla Cellulose

INDIA · LIVA

The world's largest VSF producer; plants at Nagda, Kharach, Vilayat and Harihar anchor Indian supply.

Lenzing

AUSTRIA · ECOVERO

Certified EcoVero viscose for brand programmes demanding European chain-of-custody.

Sateri & imports

CHINA · INDONESIA

Large Asian producers supply landed viscose; quality and duty vary by origin.

Spun-dyed range

BIRLA SPUN-DYED

Colour-in-fibre grades that remove dyehouse water and shade risk entirely.

Ethnic wear runs on it

Sarees, kurtis, dress material and linings — viscose's drape built these categories.

Knits discovered it

Viscose and viscose-elastane knits took over women's tops on comfort and fall.

Certification is the new spec

Brands specify EcoVero / Livaeco by name; commodity viscose is losing export access.

Blends extend it

PV suiting and cotton-viscose knits carry viscose into structured and casual wear.

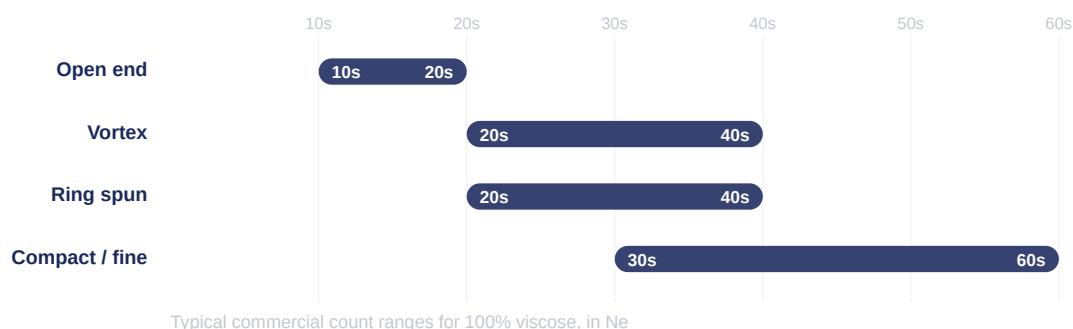
What this means for the yarn trade. Viscose yarn buying is about lot management, shade consistency and knowing which mills spin it gently. We match programmes to mills with proven viscose discipline across ring, vortex and open-end systems.

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% viscose yarn: spinning for drape

Viscose spins beautifully but unforgivingly — its low wet strength and high elongation demand gentler settings than cotton at every stage.



YARN TYPE / SYSTEM	USUAL RANGE	WHERE IT FITS
Ring spun	20s – 40s Ne	Wovens and knits with the classic viscose hand
Compact	30s – 60s Ne	Finer, cleaner yarns for premium dress material
Vortex	20s – 40s Ne	Low-pilling knits; the fastest-growing viscose route
Open end	10s – 20s Ne	Economical coarse counts for casual wovens
Slub / fancy	Programme based	Character yarns for ethnic and casual fabrics

Specification to order

- 1.2 / 1.4 dtex, 38 mm bright or dull to match end use
- Single fibre lot per fabric programme — barre insurance
- Spun-dyed fibre where shade fastness or water rules matter
- Certified grades (EcoVero / Livaeco) for export programmes

Processing discipline

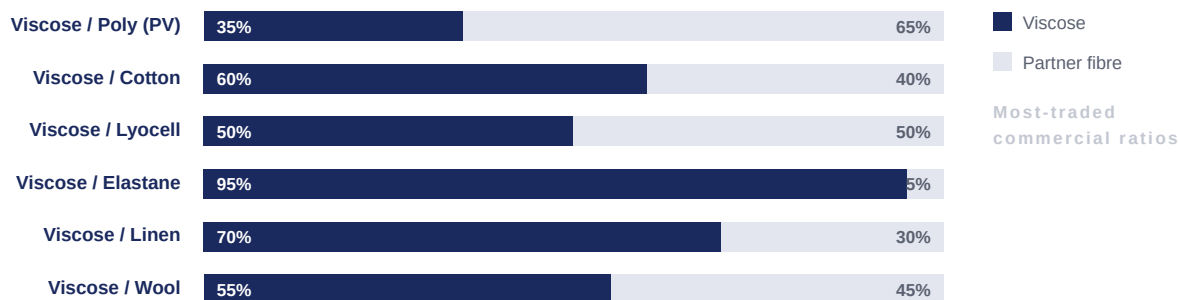
- Lower drafting tensions than cotton throughout
- Humidity control — viscose is highly moisture responsive
- Gentle winding to protect elongation
- Low-tension wet processing; realistic shrinkage allowance

CHAPTER 07

Blends: viscose as the drape donor

In blends, viscose contributes fall, lustre and absorbency. PV is India's second-largest blended category and the backbone of value suiting.

BLEND	COMMON RATIOS	WHAT IT DELIVERS	PRIMARY END USE
Viscose / Polyester (PV)	65:35 poly-rich	Suiting stability with viscose drape at sharp economics	Suiting, trousers, uniforms
Viscose / Cotton	60:40, 50:50	Softer, brighter knits than cotton alone	Tops, kurtis, knitwear
Viscose / Lyocell	50:50, 30:70	Wet-strength rescue with the same fibre chemistry	Dress material, premium ethnic
Viscose / Elastane	95:5 core spun	Fluid stretch knits	Leggings, fitted tops
Viscose / Linen	70:30	Softened linen texture at accessible price	Summer wovens
Viscose / Wool	55:45	Drape and economy in warm suiting	Blazers, winter ethnic



The commercial logic in one line. Any fabric that must fall, flow or shine at a value price will have viscose in it. The blend fixes what viscose lacks — strength and stability — while keeping the drape buyers pay for.

CHAPTER 08

Where viscose is being used

Viscose owns the categories where drape decides the sale — and Indian ethnic wear is the largest such market in the world.



Ethnic wear

Sarees, kurtis, salwar suits and dupattas — the heartland of Indian viscose.



Dress material

Fluid wovens, crepes and challis for women's western and fusion wear.



Knits

Viscose and viscose-elastane jersey took over the women's tops market.



Linings and home

Lustrous linings, furnishing and decorative fabrics.



Innerwear touch

Blended next-to-skin fabrics using viscose's absorbency.



Athleisure blends

Soft-hand blends where full synthetic feels cheap.



Nonwovens

A major fibre in wet wipes and hygiene — biodegradability is the driver.

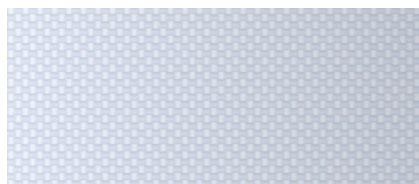


Medical

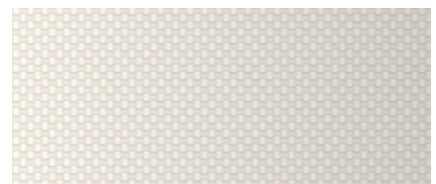
Absorbent pads, swabs and dressings alongside cotton.



100% VISCOSE · ETHNIC



PV 65:35 · SUITING



VISCOSE KNIT · TOPS

Segment to watch in India. Spun-dyed viscose. As effluent norms tighten on dyehouses, colour-in-fibre yarns move from speciality to mainstream — especially in deep blacks and navys.

CHAPTER 09 · OUR VIEW

Viscose holds its ground — certified and spun-dyed lead the way

Drape at a value price is not going out of fashion in India. The category's future is cleaner sourcing, tighter lots and colour-in-fibre.

01 Ethnic demand is structural

Indian ethnic and fusion wear grows with the domestic market — and it is built on viscose drape.

03 Spun-dyed rides effluent rules

ZLD requirements on dyehouses make colour-in-fibre economics better every year.

05 Lyocell is sibling, not enemy

Premium programmes step up to lyocell; viscose keeps the value tier — often blended together.

02 Certification decides exports

EcoVero and Livaeco specifications are becoming the passport to brand programmes.

04 Vortex changes the knit game

Low-pilling vortex viscose answers the category's biggest consumer complaint.

What to be realistic about

Wet strength and shrinkage are physics, not defects to engineer away; process discipline and honest care labelling protect the category.



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 viscose and viscose-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.

Shivpriya Texchem Pvt. Ltd.

2nd Floor, Block No. 5, Jai Hind Estate, Building 1B, Dr Atmaram Merchant Road,
Near Kabutar Khanna, Bhuleshwar, Mumbai 400002
info@shivpriyatexchem.com · +91 87672 50274 · shivpriyatexchem.com

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