LEELINEBAGS · BUYER'S CHECKLIST

Jute Fabric Test-Data Checklist

The figures and questions behind our jute fabric guide, laid out so a supplier's spec sheet can be checked against something.

1. Published reference values

Raw jute, standard laboratory conditions (20 °C, 65% RH). These describe the fibre, not a finished bag.

Metric	Published / reported	Typical supplier claim	What it means
Tensile strength (dry, raw fibre)	393–773 MPa	No comparable fibre figure	Spread is wide; one number is not a spec
Breaking elongation	1.16–1.5%	"1.8%"	Very little stretch before failure
Young's modulus	13–26.5 GPa	"Up to 19 GPa"	Stiff fibre; poor drape
Cellulose content	61–71%	Rarely stated	Food for mould and rot
Moisture regain (standard)	~13.75%	"~12%"	Absorbs water freely
Abrasion	Sheds faster than cotton in standard tests	"Over 2,000 cycles"	Fails under sustained friction
Wet strength	Falls sharply when wet	Rarely disclosed	The single biggest failure mode

A "50+ lb" claim refers to a 500D woven construction and is not comparable to MPa on raw fibre. Treat any single number as the best sample in a batch, not the batch.

2. Ask for the report, not the claim

- [ ] Test standard used, and the accredited lab that ran it (SGS, TÜV Rheinland or equivalent).
- [ ] Number of samples and which construction each covers — warp and weft.
- [ ] Date of the report; anything older than two seasons should be re-run.
- [ ] Whether the figure is fibre-level or fabric-level.
- [ ] Wet-tensile result, not only dry.
- [ ] Batch-to-batch spread, not a single best result.

3. Wet-strength check

Jute takes up water and loses a large share of its tensile strength when wet. That is the failure mode that splits sacks at the bottom seam after a damp spell, and it is the one most spec sheets omit.

- [ ] Wet-tensile value for the exact construction being quoted.
- [ ] Conditioning method used before the wet test.
- [ ] Whether a water-repellent finish is applied, and what it does to biodegradability.
- [ ] Storage and transit conditions the supplier assumes for the finished bag.

4. Jute batching oil (JBO) check

Jute fibre is lubricated with an emulsion of water and batching oil before carding. Conventional JBO is a petroleum-derived hydrocarbon and leaves a diesel-like odour that lingers in the finished fabric.

> **Published finding:** a 1986 study in the *Journal of Chromatographic Science* analysed a non-FDA grade of JBO (JBO-P) and found benzo(a)pyrene, a potent carcinogen, at 129 mg/kg, with a polyaromatic hydrocarbon profile closely resembling carcinogenic used engine oil. The EFSA Panel on Contaminants has since flagged mineral oil hydrocarbons migrating out of jute sacks into food as a recognised health risk.

- [ ] Batching oil type: conventional petroleum JBO, or vegetable-oil based (castor / coconut).
- [ ] Hydrocarbon-free certificate, named and dated — not a verbal "food-grade" assurance.
- [ ] Stated residue limit, and the test method behind it.
- [ ] Whether the mill runs a dedicated vegetable-oil line or shares one with conventional JBO.

5. Price bands and lead times

Indicative bulk pricing, FOB Kolkata, based on mill quotes in early 2026.

Product	Price	Unit	Notes
Natural burlap (plain weave, 250 GSM)	$0.38–0.52	Per running metre	Width varies by mill
Food-grade burlap (hydrocarbon-free)	$0.55–0.68	Per running metre	Limited supplier pool
Heavy sacking (400 GSM)	$0.62–0.78	Per running metre	Bulk only
Jute-cotton blend (70/30)	$0.85–1.10	Per running metre	Much softer hand feel
Finished tote bag (standard 35×40 cm)	$0.35–0.90	Per unit	Handles, lining, print

Prices are per running metre, not per square metre — a wider roll carries more fabric per metre, so quotes are only comparable at the same width. Ranges move with grade and season.

MOQ: usually 500–1,000 m; 300–500 m trial orders possible January–March. **Lead times:** samples 5–7 business days, bulk 15–30 days, longer through a rainy-season delay. August and September are the slow months.

6. Eight questions to send before a quote

1. What construction and GSM is this price based on?
2. Is the tensile figure fibre-level or fabric-level, and which standard was used?
3. What is the wet-tensile result for this exact construction?

4. Is the batching oil vegetable-based, and can you supply the hydrocarbon-free certificate?
5. What is the batch-to-batch GSM and strength spread over the last six months?
6. What is the trial-order minimum, and the surcharge if any?
7. Do you run the jute line in-house or subcontract it, and where?
8. What lead time should be assumed for an August or September delivery?

7. Where jute fits

Use jute for dry, short-to-medium-lifespan structural applications: packaging, geotextiles, nursery products and acoustic panels.

Avoid jute where the application involves moisture, frequent skin contact, high traffic, permanent UV exposure, or food contact without certified hydrocarbon-free processing.

For bags, jute is normally a blend component or a decorative accent rather than a 100% body material.

Sources: published textile reference values for raw jute; National Jute Board; Agarwal, Kumar and Mehrotra, *J. Chromatogr. Sci.* 24(7), 1986; EFSA Panel on Contaminants; Indian Jute Industries' Research Association; mill quotes, early 2026. Prepared by LeelineBags, 14 November 2026.