PAPTEX Dryer Fabric Product Catalog

Flat Yarn · Round Yarn · Spiral · Anti-Static

Permeability data, heat resistance & seam configurations

DOC-CAT-DF-2026.1 | Edition: 2026 Q1

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1. Dryer Fabric Technology Overview

Dryer fabrics perform the critical function of holding the paper sheet in close contact with steam-heated drying cylinders throughout the dryer section. This maximizes heat transfer efficiency while controlling sheet shrinkage and maintaining web stability. On single-tier dryer configurations, the fabric also carries the sheet between cylinders — a demanding combination of mechanical strength, thermal stability, and sheet-handling performance.

PAPTEX dryer fabrics are engineered for three demanding requirements: uniform air permeability for consistent moisture profile, high dimensional stability under sustained tension at elevated temperatures (typically 80–140 °C), and long wear life against the abrasive effects of cylinder surfaces and guide rolls. Our portfolio covers four fabric families optimized for specific machine positions and performance requirements.

Parameter	Unit	Range	Impact
Air Permeability	CFM @ 125 Pa	50 – 700	Drying rate & sheet flutter control
Heat Resistance	°C (continuous)	Up to 180	Fabric life at operating temperature
Tensile Strength	kN/m	18 – 55	Operational tension capacity
Caliper	mm	1.6 – 4.8	Contact pressure & heat transfer
Seam Strength	% of body	40 – 65	Critical weak point in service

2. Flat Yarn Dryer Fabrics

Flat yarn dryer fabrics are the most widely used type, offering an optimal balance of sheet contact area, permeability uniformity, and cost-effectiveness. The flat, rectangular cross-section monofilaments provide high contact surface area for efficient conductive heat transfer while the precise weave geometry ensures uniform airflow distribution.

Model	Yarn (mm)	CFM	Heat (°C)	Caliper (mm)	Best Position
FY-2800	0.45×0.30	300	150	2.4	1st dryer group (high moisture)
FY-2500	0.50×0.35	350	150	2.6	Mid dryer groups
FY-2200	0.55×0.40	420	160	2.8	Late dryer groups
FY-2000	0.60×0.45	500	160	3.0	After size press / coater
FY-1800	0.70×0.50	600	170	3.2	High-temp applications

3. Round Yarn Dryer Fabrics

Round yarn dryer fabrics use circular cross-section monofilaments, providing higher void volume and air permeability than flat yarn designs. They are preferred for positions requiring maximum moisture removal, such as the first dryer group after the press section where evaporation rates are highest.

Model	Yarn Dia (mm)	CFM	Heat (°C)	Caliper (mm)	Best Position
RY-3000	0.50	400	140	2.8	1st dryer group
RY-2700	0.60	480	140	3.0	1st–2nd groups
RY-2400	0.70	560	150	3.2	Mid dryer sections

4. Spiral Dryer Fabrics

Spiral dryer fabrics are assembled by interconnecting spiral coils with a pintle wire, forming a continuous belt. This design offers exceptional ease of installation and repair — individual coils can be replaced without removing the entire fabric. They are the preferred choice for wide, high-temperature machines and positions with high contamination risk.

Model	Coil Pitch	CFM	Heat (°C)	Caliper (mm)	Best Application
SP-4000	Fine	250	180	4.0	High-temp cylinder positions
SP-3700	Medium	350	180	4.2	After coater dryers
SP-3400	Coarse	480	180	4.5	Final dryer groups

5. Seam Types & Selection

Seam Type	Strength (% body)	Marking Risk	Installation	Best For
Pin Seam	45–55%	Moderate	On-machine (difficult)	Narrow machines (<4 m)
Spiral Seam	40–50%	Low	Pre-assembled (easy)	Wide machines, frequent changes
Woven-In Seam	55–65%	Very Low	N/A (endless fabric)	Mark-sensitive grades
Clapper Seam	50–60%	Low	Moderate	Heavy fabrics, board machines

6. Application Guide by Machine Position

Dryer Group 1 (post-press): Highest moisture content — prioritize maximum permeability and contamination resistance. Recommended: FY-2800 or RY-3000 with open weave for rapid water vapor evacuation.

Mid Dryer Groups: Sheet is partially dried — balance heat transfer against sheet flutter risk. Recommended: FY-2500 / FY-2200 with moderate CFM (350–420).

After Size Press / Coater: Sheet re-wetted, high risk of picking and sticking. Recommended: FY-2000 with anti-stick coating; consult PAPTEX for anti-static options if static-prone grades are run.

Final Dryer Groups: Lowest moisture, sheet is shrinking — minimize fabric marking. Recommended: Fine-weave flat yarn (FY-1800) or woven-in seam spiral for heavy grades.