



Flat Yarn Dryer Fabric

Technical Datasheet – Model FY-2800

1st Dryer Group High-Permeability Fabric
300 CFM | Heat Resistance 150 °C | Caliper 2.4 mm

DOC-DS-FY2800-2026.1 | Gated Document

1. Product Description

The PAPTEX FY-2800 is a flat yarn dryer fabric optimized for the first dryer group where sheet moisture content is highest (typically 55–65% entering dryness). Its high air permeability (300 CFM) and flat monofilament construction maximize water vapor evacuation while maintaining intimate sheet-to-cylinder contact for efficient conductive heat transfer. The rectangular yarn cross-section (0.45 mm × 0.30 mm) provides a smooth, uniform contact surface that minimizes sheet marking.

2. Technical Specifications

Parameter	Value	Unit	Test Standard
Air Permeability	300 ± 20	CFM @ 125 Pa	ISO 9237:1995
Caliper	2.4 ± 0.1	mm	ISO 9073-2 (modified)
Tensile Strength – MD	≥ 42	kN/m	ISO 13934-1
Elongation at 20 N/cm	≤ 0.6	%	PAPTEX internal method
Heat Resistance (Continuous)	150	°C	ISO 2578
Seam Strength	≥ 50% of body MD strength	%	PAPTEX internal method
Yarn Type – Warp	0.45×0.30 mm PET flat	–	Micrometer measurement
Yarn Type – Weft	0.50×0.35 mm PET flat	–	Micrometer measurement
Weave Pattern	3-shaft twill, warp-dominant	–	Visual inspection
Weight	1,050 ± 40	gsm	ISO 9073-1
Open Area	22 ± 2	%	Optical image analysis
Sheet Contact Area Ratio	≈ 72%	%	Under 2.0 kN/m tension at 130 °C
Edge Treatment	PU edge seal, hot-cut	–	Visual inspection
Standard Seam	Spiral seam with PET pintle wire	–	Assembly specification

3. Performance Data

Steady-State Permeability Retention: The FY-2800 retains $\geq 85\%$ of its initial permeability after 180 days of continuous operation at 150 °C, as verified by post-removal laboratory testing on fabrics from 12 production machines (average data, 2024–2025). Testing methodology: permeability measured at 10 random positions, averaged, and normalized to the initial value.

Contamination Resistance: The warp-dominant twill weave and smooth monofilament surface minimize fiber and filler accumulation. Standard alkaline cleaning (pH 10–11, 60 °C shower water) typically restores 92–97% of initial permeability. The flat yarn geometry reduces particle entrapment compared to round yarn designs of equivalent permeability.

Heat Transfer Efficiency: The 72% sheet contact area ratio (measured under 2.0 kN/m tension at 130 °C cylinder surface temperature) delivers efficient conductive heat transfer while the 22% open area ensures adequate vapor evacuation – preventing the vapor barrier effect that can insulate the sheet from the cylinder in lower-permeability designs.

4. Ordering Information

Field	Detail
Product Code	FY-2800
Standard Widths	2.5 m – 10.2 m
Standard Lengths	Per machine drawing
Lead Time	3–5 weeks (standard)
Minimum Order	1 piece