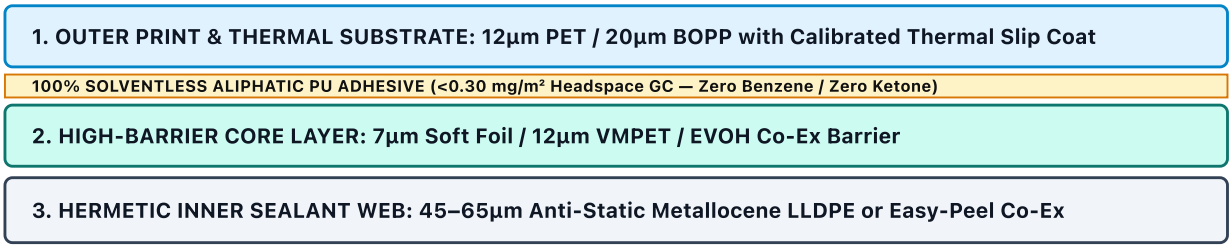
High-Speed VFFS / HFFS Printed Rollstock, Stick-Pack Web & Anti-Fog Lidding Film — TDS

Calibrated Kinetic COF (μk = 0.19 ± 0.03), Hot-Tack Powder-Contamination Curves & Eye-Mark Standards

1. MULTI-LAYER CROSS-SECTIONAL POLYMER STACK



Functional Layer	Verified Polymer & Micron Gauge	Converting & Lamination Process
Outer Forming-Collar Web	12μm PET / 20μm BOPP with Calibrated Thermal Slip Coat	Kinetic COF Outer-to-Metal μk = 0.19 ± 0.03 (Zero Collar Drag)
Barrier Middle Layer	7μm Soft Foil / 12μm VMPET / EVOH Co-Ex Barrier	100% Inline Camera Defect Inspection @ 400 m/min
High Hot-Tack Inner Web	45–65μm Anti-Static Metallocene LLDPE or Easy-Peel Co-Ex	Hot-Tack > 4.8 N @ 115°C (Seals Through Fine Whey/Probiotics)

2. LABORATORY PHYSICAL, BARRIER & MIGRATION TEST MATRIX

Parameter	Verified Factory Value	Instrument / Condition	Standard
Dynamic Coefficient COF	Outer/Metal μk = 0.19 ± 0.03 | Inner/Inner μk = 0.21 ± 0.03	Tested 72h Post-Cure per Roll Batch	`ASTM D1894`
Slitting & Winding Spec	Width Tolerance ±0.15 mm | Edge Camber < 0.12% per 5m	76 mm (3") or 152 mm (6") Heavy-Wall Cores	`Zero Telescoping`
Photo-Eye Mark Contrast	10 × 5 mm Solid Contrast Block · Optical Contrast ≥ 85%	Supports SICK / Keyence RGB & UV Sensors @ 400 ppm	`Winding Chart #1–#8`
Anti-Fog Tray Lidding	Weld-Seal or Smooth Easy-Peel (4.5–7.5 N) to PP, APET & CPET	Crystal-Clear Cold-Display Anti-Fog Grade A	`MAP O2/CO2 Flush`

FlexPouchMFG™ Line Qualification & CAD Standards

3. HIGH-SPEED FILLING MACHINE & HEAT-SEALING OPERATING WINDOW

Pre-Made Rotary & Inline Pouch Fillers

Validated on Toyo Jidoki, Mespack, Volpak, Bossar & Rezpack (35–90 ppm). Bag flat camber <1.0 mm ensures 99.8% vacuum pick-up reliability. Recommended jaw pressure: 0.28–0.35 MPa; dwell: 0.45–0.70 s.

VFFS / HFFS / Stick-Pack Web Tracking

Calibrated kinetic COF (μk = 0.19 ± 0.03) prevents forming-collar stick-slip on Syntegon/Bosch, Viking Masek, Rovema & Ilapak lines up to 600 packs/min. Heavy-wall 76 mm / 152 mm cores.

4. PRE-PRESS ARTWORK BLEED, PHOTO-EYE MARK & ZIPPER/VALVE CLEARANCES

CAD Dieline Element	Mandatory Tolerance	Production & Filling-Line Purpose
Outer Bleed & Safety Margin	+3.0 mm bleed · -4.0 mm inner text safe zone	Eliminates white edge flash during high-speed rotary slitting (±0.15 mm)
Heat-Seal & Gusset Ink Mask	Optional matte/heat-resistant overprint lacquer	Prevents jaw ink transfer at 145°C–195°C sealing temperatures
Photo-Eye Registration Mark	10 mm × 5 mm solid high-contrast block (≥85%)	Clear unobstructed track for SICK / Keyence optical cut-off sensors
Laser Tear Score & Zipper Axis	Zipper center 32–38 mm from top; laser score -12 mm	Clean consumer thumb-opening without tearing into zipper flange
Barcode / DataMatrix Contrast	Opaque double-white ink backing (≥82% reflectance)	Guarantees ANSI Grade-A retail & GS1 / Chestny ZNAK scan rates

Complimentary Pre-Production Line Trial Policy: Prior to bulk printing, Alex Gao's engineering lab dispatches free unprinted trial pouches or 50–100m test rolls matching exact micron structure so your co-packer can verify jaw temperatures, autoclave F0 profiles, or 50°C cosmetic stability.

5. FACTORY-DIRECT TIERED REFERENCE MATRIX (HP INDIGO DIGITAL VS. 10-COLOR ROTOGRAVURE)

Format / Specification	HP Indigo Digital	Mid-Scale Run	High-Volume Rotogravure
Multi-Lane Stick-Pack Foil Web (PET12/AL7/PE55)	300 kg ($5.95/kg)	1,000 kg ($4.65/kg)	**3,000+ kg ($4.25/kg · ~1,020 sticks/kg)**
Metallized Snack / Pillow-Pack Film (BOPP/VMPET/PE)	300 kg ($5.10/kg)	1,000 kg ($4.15/kg)	**5,000+ kg ($3.85/kg)**
Anti-Fog Easy-Peel MAP Tray Lidding Rollstock	300 kg ($6.20/kg)	1,000 kg ($4.95/kg)	**3,000+ kg ($4.45/kg)**

6. CLEANROOM EXPORT CARTON, PALLETIZATION & BATCH COA PROTOCOL

Stage	Standard Operating Specification	Verification Document
Inner Sanitary Liner	Antistatic food-grade virgin PE inner bag heat-sealed inside cleanroom	ISO Class 8 Lot Traceability Label
Export Corrugated Box	Double-wall 5-ply BC-flute Kraft carton (ECT ≥ 44 lb/in · gross ≤ 18 kg)	Drop-Tested Carton Corner Guards
FCL / LCL Palletization	Heat-treated ISPM-15 fumigation-free pallets + LLDPE stretch hood + desiccant	Container Loading Photo Report
Mandatory Release COA	MOCON OTR/WVTR, Instron ASTM F88 seal curve & Agilent 8890 GC solvent chromatogram	PDF + Printed COA in Carton #1

Request Your Custom 1:1 Vector Dieline & Free 25-Pouch Sample Kit (2-Hour SLA):

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