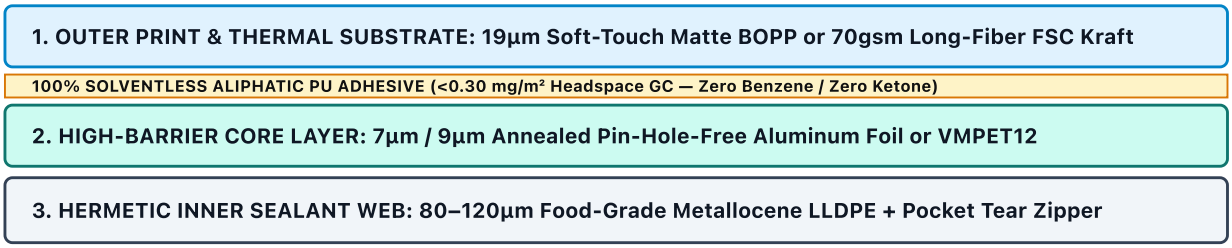
Specialty Coffee & Artisan Food Stand-Up / 8-Side-Seal Flat-Bottom Pouches — Engineering TDS

Ultrasonic Swiss Wipf® One-Way Degassing Valves, Odor-Free Solventless Foil & FSC Kraft Tin-Tie Structures

1. MULTI-LAYER CROSS-SECTIONAL POLYMER STACK



Functional Layer	Verified Polymer & Micron Gauge	Converting & Lamination Process
Tactile / Print Web	19µm Soft-Touch Matte BOPP or 70gsm Long-Fiber FSC Kraft	Anti-Scuff Matte Varnish / Spot UV Registration
Gas & Aroma Shield	7µm / 9µm Annealed Pin-Hole-Free Aluminum Foil or VMPET12	OTR ≤ 0.015 cc/m²·24h · Preserves Volatile Coffee Terpenes
Odor-Free Sealant	80–120µm Food-Grade Metallocene LLDPE + Pocket Tear Zipper	Ultrasonic Wipf® Valve (4.5–6.8 mbar Opening, <0.8 mbar Close)

2. LABORATORY PHYSICAL, BARRIER & MIGRATION TEST MATRIX

Parameter	Verified Factory Value	Instrument / Condition	Standard
Degassing Valve Spec	Genuine Swiss Wipf® Ultrasonic Filter Valve (Mesh Protected)	Opening: 4.5–6.8 mbar | Closing: ≥0.8 mbar	`Zero O2 Back-Flow`
Bean Density Calibration	Light Roast: 0.38–0.42 g/mL | Dark Oily Roast: 0.32–0.35 g/mL	+14% Headspace Allowance for Dark Roast	`CO2 Off-Gassing Curve`
Heat-Seal Jaw Window	135°C – 165°C @ 0.30 MPa, 0.55 sec Dwell Time	Peel Strength ≥ 46 N / 15mm	`ASTM F88 / F1921`
Organoleptic Purity	100% Solventless PU Cure · <0.25 mg/m² GC Residual	Zero Ethyl Acetate Cupping Taint	`SCA Sensory Clean`
Drop & Gusset Burst	1.2 m Five-Angle Drop Test (1 kg & 2.27 kg Gusset Formats)	Internal Burst ≥ 0.14 MPa	`ASTM D5276 / F1140`

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
100g Sample / Drip-Bag Outer (100×155mm)	500 pcs ($0.195)	5,000 pcs ($0.098)	**25,000+ pcs ($0.052)**
250g / 12oz 8-Side-Seal Flat-Bottom + Wipf®	500 pcs ($0.295)	5,000 pcs ($0.152)	**25,000+ pcs ($0.089)**
1kg / 2.2lb Cafe Side-Gusset Quad-Seal + Valve	1,000 pcs ($0.380)	5,000 pcs ($0.242)	**20,000+ pcs ($0.148)**
FSC Kraft Tin-Tie Bakery / Roaster Bag (KIT-12)	1,000 pcs ($0.265)	5,000 pcs ($0.165)	**25,000+ pcs ($0.096)**

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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