

OFFICIAL B2B ENGINEERING SPECIFICATION DOSSIER · VELLA-DOC-2026-03

5-PIECE LUXURY PERFUME FLACON & HOME FRAGRANCE ENGINEERING DOSSIER

Coordinated Flacon + FEA 15 Pump + Collar + Zamac/Magnetic Cap + Rigid Box & Candle Vessels

Executive Engineering Summary: Sourcing a fragrance launch across five disconnected vendors causes crimp-neck leakage, collar play, and gold shade drift between cap and collar. Vella engineers and inspects the complete 5-piece fragrance pack and matching home-fragrance vessels (heavy-base candle jars & reed diffusers) under one Pantone/metallic master standard.

1. Quantitative Engineering & Commercial Matrix

Component Subsystem	Engineering Specification	Tolerance / Test Standard	Stock + Custom MOQ	Lead Time
1. Super-Flint Glass Flacon	30 / 50 / 100 ml lead-free crystal flint	Neck concentricity ± 0.15 mm; thermal 42C	500 stock / 2,000 decorated	25-35 days
2. Atomizer Spray Pump	FEA 15 crimp or 15/415 screw; 0.07-0.10 ml	-0.08 MPa vacuum in ethanol; $>1,500$ strokes	2,000 pcs (matched finish)	25-35 days
3. Anodised / Crimped Collar	Step-less aluminium collar for FEA 15	Pull-off force ≥ 45 N; zero rotation play	2,000 pcs (anodised gold/black)	25-35 days
4. Zamac / Surlyn / Mag Cap	65-120g Zamac die-cast or N52 magnetic cap	48h salt-spray & ethanol rub test; pull 4-7 N	2,000 stock / 5,000 custom tool	30-45 days
5. Rigid Presentation Box	1200g greyboard + FSC art paper + EVA/pulp	ISTA 3A 76cm 6-face drop test without scuff	1,000-2,000 pcs	20-30 days
6. Candle & Diffuser Vessels	200g/300g/500g matte glass jar + 100ml reed	ASTM F2179 thermal shock (wax pour 85C)	500 stock / 2,000 sprayed	25-35 days

2. Vella Six-Module Governance & Buyer Protection Commitments

Module 1-2 · Spec & Source
Brimful vs nominal verification, neck finish matching (18/410, 20/410, 24/410, FEA 15), and small-run routing from 500 to 2,000 units.

Module 3-4 · Sample & Mould
Spectrophotometer Pantone Delta E ≤ 1.5 across materials, 48C/30-day compatibility report, and 30/40/30 brand mould ownership.

Module 5-6 · 4-Gate QC & Ship
IQC/IPQC/FQC/OQC under AQL ISO 2859-1, -0.08 MPa vacuum test, 3M 600 tape test, and consolidated ISTA 3A export shipping.

Fast-Track Stage-1 Engineering Scope & Sample Dispatch (24-Hour SLA)

Send your target formats, capacities, decoration references, and run volume to **Alex Gao** at **alex@vellapack.com** or WhatsApp **+86 139 2512 2895** (Web: **vellapack.com/contact**). We return a line-by-line feasibility breakdown (Stock vs. Decorated Stock vs. Private Mould) within 24 hours.