

OFFICIAL B2B ENGINEERING SPECIFICATION DOSSIER · VELLA-DOC-2026-04

ACTIVE SKINCARE PRIMARY PACKAGING ENGINEERING SPECIFICATION

Airless Dispensers, Super-Flint Droppers, True-Brimful Jars & 5-Layer EVOH Barrier Tubes

Executive Engineering Summary: Active skincare formulations (Retinol, L-Ascorbic Acid, AHA/BHA, Peptides, and chemical/mineral SPF) fail when paired with incompatible elastomers, oxygen-permeable sleeves, or undersized jar cavities. Vella governs full-line skincare sets under unified neck-finish and brimful capacity verification.

1. Quantitative Engineering & Commercial Matrix

Primary Format	Resin / Glass & Barrier Architecture	Dosage & Neck Governance	QC Performance Threshold	MOQ Floor
Airless Pump Bottle	PP inner / PETG or PCR outer; metal-free path	0.15-1.0 ml/stroke; evacuation >=93%	-0.08 MPa vacuum 15m loss < =0.5%	500 / 2,000
Serum Dropper Bottle	Super-flint / amber glass; NBR or Silicone bulb	18/410 & 20/400; 0.5-0.8 ml draw	48C 30-day oil swell & tilt leak 0%	500 / 2,000
True-Brimful Cream Jar	Heavy flint glass, double-wall PMMA, PCR-PP	50ml nominal = >=55ml brimful cavity	Torque 10-18 lbf.in + PE/induction liner	500 / 2,000
5-Layer EVOH / ABL Tube	PE/EVOH/PE (OTR < 1.5 cc/m2/d) or ABL 25um Al	D19-D45; ceramic/zinc/roller tip	Tail seal burst >=0.12 MPa for 30s	2,000 / 5,000
SPF Sunscreen Packaging	Modified PP/HDPE airless or shaker bottle + SS ball	20/410 & 24/410 fine nozzle	48C 30-day UV-filter stress-crack 0%	2,000 / 5,000

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.